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CHLOROFORM *versus* ETHER.

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SCOTLAND has always been prominent in everything relating to the study of anæsthetics; and the Glasgow Medico-Chirurgical Society has done good service in devoting three evenings to a discussion on this subject, and in publishing a full report of the proceedings in a good-sized pamphlet.[1]

A discussion on anæsthetics also took place at the recent meeting of the British Medical Association at Bournemouth; and these discussions serve a useful purpose in drawing attention to the present unsettled state of opinion on the subject. At both places the matter was treated from two points of view: that of experiment on animals and that of clinical observation, and from both these standpoints widely different views were expressed by different observers.

[1] *Discussion on Anæsthetics.* Edited by J. Walker Downie, M.B. Reprinted from the *Glasgow Medical Journal*, 1890–1.

The principal experimenters on the physiological action of anæsthetics within a recent period have been:—

1. The Glasgow Committee on Anæsthetics of 1879.
2. The Hyderabad Commission.
3. Dr. Macwilliam of Aberdeen.
4. Professor Wood in the University of Pennsylvania.

Two important questions, among others, have been considered by these authorities:

1. The comparative fatality of ether and chloroform.
2. The mode in which they kill—whether through the circulation or through the respiration.

Inasmuch as these two questions depend very much upon one another for their solution, they are generally considered together.

The two opposing views have long been looked upon in this country as those of Edinburgh and London respectively. Syme taught that we should be guided as to the effect of chloroform, not by the circulation, but entirely by the respiration; and this teaching was adopted by Lister, who did not consider it necessary to watch the pulse when giving chloroform, but recommended close attention to the respiration.

On the other hand, Erichsen, who may be looked upon as representing, in this respect, the teaching of the London schools generally, says that the finger of the administrator should never be off the pulse, but that breathing and circulation should both be watched.

Each of these views has now been backed up by the experiments of a great Commission. The Glasgow Committee of 1879 found, as the result of their experiments upon dogs and rabbits, that, apart altogether from the respiratory centres, chloroform has a disastrous effect

on the heart. The Hyderabad Commission, on the other hand, as the result of a large number of experiments on the pariah dogs of India, and many others on monkeys and other animals, report that in every case where chloroform was pushed, the respiration stopped before the heart. They point out that chloroform, when given continuously, freely diluted with air, causes a *gradual* fall in the mean blood-pressure, provided the animal's respiration is not impeded in any way, and it continues to breathe quietly without struggling or involuntary holding of the breath. As this fall continues, the animal first becomes insensible, then the respiration gradually ceases, and, lastly, the heart stops beating. *But however concentrated the chloroform may be, it never causes sudden death from stoppage of the heart.* They further report that chloroform has no power of increasing the tendency to either shock or syncope during operation; that it in no way *per se* endangers a fatty heart; but, on the contrary, by lowering the blood-pressure, lessens the work that the heart has to perform, which is a positive advantage.

These two Commissions may be looked upon as the most important authorities on the question. But two other sets of experiments have been lately made which deserve attention. These are, firstly, those of Professor Macwilliam of Aberdeen, who made a series of experiments upon animals, chiefly cats, between 1888 and 1890, and came to the following conclusions among others:—

1. During chloroform anæsthesia the blood-pressure is lowered and the heart's action is weakened.
2. Dilatation of the heart commonly occurs also.
3. The tone of the heart-muscle is depressed, the cardiac walls become relaxed, and the functional efficiency of the heart is impaired.

4. Cardiac failure sometimes occurs in this way before the respiration stops.
5. That ether does not cause dilatation of the heart, nor a weakening of its action.

And, secondly, those of Professor Wood of Pennsylvania, who gives his opinion, as the result of numerous experiments on dogs in America, that chloroform is a cardiac paralysant, and often kills by a direct action upon the heart or its contained ganglia. He does not impugn the accuracy of the Hyderabad experiments, but suggests that difference in climate may account for the difference in result.

But in reply to these, Surgeon-Major Lawrie, who was the President of the Hyderabad Commission, tells us that the Glasgow Committee in 1879 and Professor Macwilliam in 1890 drew conclusions from an inadequate number of experiments. The Glasgow Committee made their observations on less than half-a-dozen animals; Professor Macwilliam made his on 75 cats; while the Hyderbad Commission did not discover the key to the safe administration of chloroform until they had made observations upon 565 animals and had reached their one hundred and forty-eighth manometer experiment. He challenges the Glasgow Committee, or Professor Wood, or Professor Macwilliam, to produce either an irregular trace or a dangerous dilatation of the heart with chloroform, before stoppage of the respiration, in any animal whose breathing is regular throughout the administration.

The point of difference then between these experimenters is, whether chloroform sometimes kills by its action upon the heart or circulation, without anything first going wrong with the respiration, or whether the patient is perfectly safe so long as the respiration goes on quietly

and regularly. All are agreed that the *principal* danger lies with the respiration; but while the Hyderabad Commission would lead us to think that *all* danger lies in this direction, the other experimenters, however much they may differ in minor matters, are agreed that a certain degree of danger lies with the heart primarily. And upon this question hinges the other question—whether ether is a safer anæsthetic than chloroform; for all who insist upon the danger to the heart from chloroform are agreed that this danger is very much lessened by the use of ether, and they recommend ether accordingly as the safer anæsthetic; while the Hyderabad Commission, on the other hand, say that chloroform is quite as safe as ether: indeed, Dr. Lauder Brunton goes so far as to say it is safer, inasmuch as it is more certain in its action.

All this difference of opinion among physiologists is very unsatisfactory, and the practical anæsthetist is almost compelled to come to the conclusion that experiments upon animals do not give much assistance, and that he must rely on clinical observation.

But if we turn here, we find no less difference of opinion.

In Scotland, and especially in Edinburgh, the teaching of Syme still prevails, and a confident belief in the safety of chloroform is fully maintained. It has even been said that deaths from chloroform never take place in Edinburgh, and that it must be from some fault in the administration that deaths are so frequent elsewhere. In Germany, and throughout the Continent, scarcely any other anæsthetic than chloroform is employed; while in India, Surgeon-Major Lawrie tells us that this anæsthetic is now given as many times as throughout the whole of Europe. In America, on the other hand, ether has

almost entirely replaced chloroform, and a general opinion prevails there that it is a much safer anæsthetic; while in England, as well as Ireland, there is a very growing opinion, especially among hospital surgeons and specialists in anæsthetics, that ether is safer than chloroform.

At the Bournemouth meeting, Dr. Dudley Buxton read a valuable paper, in which he pointed out that the conclusions of the Hyderabad Commission could not be applied to clinical work, and were calculated, therefore, to do harm. He was strongly of opinion that ether was a safer anæsthetic than chloroform, and he recommended close attention to the pulse and heart-beat as well as the respiration. A similar view was taken by Mr. George Eastes and other speakers who followed, and especially by Mr. Pridgin Teale, who in his well-known forcible manner explained the proper mode of administering ether, and pointed out that nearly all the supposed objections to its use might be obviated by attention to a few simple rules of administration. He expressed his preference for Clover's portable inhaler, as being the best we now possess; but suggested that the india-rubber air bag supplied with it was often made too small. He advocated procedure by "harmonic progression," taking the first half-minute to let the patient get accustomed to the machine, the next half-minute to let his sensibilities become numbed, and then to push the ether as rapidly as possible; by which means it would rarely take five or six minutes to put the patient under, and would often take less than two minutes.

The principal advocate for chloroform, at this discussion, was Dr. Lauder Brunton, who gave a short account of his Hyderabad experiments, and recommended that Syme's directions should be closely followed in giving

chloroform; viz., to use only chloroform of the best quality, to give plenty of it, and to give plenty of air with it.

With reference to the quality of the chloroform, an interesting point was brought forward by Dr. Copeman, Research scholar of the British Medical Association, who had found, in experimenting upon monkeys, that methylated chloroform, *i.e.* chloroform prepared from methylated alcohol, frequently caused death when pure chloroform did not; the moral of which is, that we should never risk methylated chloroform in using it on human patients.

It might be thought that the best way to settle the question of the comparative safety of ether and chloroform would be by considering the death statistics of each; but it is, unfortunately, very difficult to obtain trustworthy figures on a large scale.

Lyman gives, as the result of a summing-up of all the cases he can find:

Ether - - 99,255 inhalations, with 6 deaths, or 1 in 16,542.
Chloroform - 492,235 „ „ 84 „ „ 1 „ 5,860.

Surgeon-Major Lawrie says that he and Syme conjointly have administered chloroform 45,000 times without a death.

Roger Williams, in a letter in the *Lancet* of February 8th, 1891, shows that the London mortality for chloroform gives 1 death in every 1,236 administrations.

Dr. Coats gives 12,000 administrations of chloroform in the Western Infirmary of Glasgow since 1874 with 5 deaths, or 1 in 2,400.

In St. Bartholomew's Hospital, during the last fifteen years, chloroform was given 17,666 times with 12 deaths, or 1 in 1,472; and ether 7,493 times with 1 death.

At the Manchester Royal Infirmary there have been no less than 5 deaths under chloroform since last January.

During the last seventeen years an accurate record has been kept of the anæsthetics administered in the Bristol Royal Infirmary, and during that time chloroform, or what is practically the same thing, a mixture of chloroform and ether, has been given 5,902 times with 3 deaths, and ether 704 times with 1 death; giving a rate of 1 in 1,967 and 1 in 704 respectively.

The following is a brief report of the fatal cases, for assistance in preparing which I am indebted to Dr. James Swain:

Case 1.—*Death during administration of Chloroform.*—A man, aged 54, was placed on the operation table on December 30th, 1881, for the relief of a strangulated inguinal hernia. His pulse was very weak but quite regular, tongue moist, aspect rather pinched. Chloroform was administered on a flannel mask; and after patient had inhaled three small quantities, probably less than a drachm and a half in all, he began to struggle, and vomited some fæcal-smelling fluid. Loud tracheal râles were heard, and the breathing became embarrassed. He was turned on to his side, when he ejected about two quarts of fluid from the stomach. The pupils dilated, the pulse failed, and he became cyanosed. Artificial respiration was performed, and the tongue drawn forward; the air entered the lungs, and the pupils became small again. Vomiting, however, recurred profusely; and although he was inverted, and air was heard to enter the lungs in artificial respiration, yet it was not successful. At the *post mortem* examination, some food was found in the larynx just below the rima glottidis; the lungs were œdematous and sodden; the kidneys were granular; but the heart appeared healthy.

Case 2.—*Death during administration of Chloroform.*—A woman, aged 45, was placed under chloroform on April 20th, 1883, for the purpose of a vaginal examination. She had taken fluid food a short time previously, and was subject to a

chronic cough. About twenty drops of chloroform were given on a flannel mask, and afterwards a mixture of one part chloroform and two parts ether was used. She took the anæsthetic well, became unconscious in three minutes, was kept under the influence for ten minutes further, when the respiration grew shallow, the face became pale, and after two or three feeble respirations the breathing and pulse both ceased. Inversion and artificial respiration were used without avail. At the *post mortem* examination, tubercular peritonitis was found. The right lung contained a small cavity in its upper lobe, with tubercular deposits around; the left lung also showed evidence of tubercular deposits in its upper part. The heart was soft and flabby, but the valves were healthy. The first part of aorta was atheromatous. Brain and kidneys healthy.

Case 3.—*Sudden Death after administration of Ether.*—A man, aged 24, was placed on the operation table on October 29th, 1884, for the purpose of having an incision made in a node on the tibia. He took the ether well, about an ounce and a half being used. He became quite conscious before being removed from the table, and was then carried back to the ward and placed in bed. He talked quite freely to the other patients, and remained quite conscious for half-an-hour; and then turned over on his side, became blue in the face, gasped for breath, and died in two minutes. There was no vomiting throughout. At the *post mortem* examination, the vessels of the brain were very full of blood, and the sinuses distended; but no embolism or hemorrhage could be discovered. The heart was normal, rather pale, but contracted, with small *ante mortem* clot. The lungs were both acutely congested, and almost black in colour. Other organs healthy.

Case 4.—*Death from a mixture of Chloroform and Ether.*—A man, aged 50, was being operated on for cataract on May 19th, 1887. A mixture of chloroform and ether was administered on a flannel mask; and the patient suddenly died, apparently from cardiac failure.

No *post mortem* examination allowed.

Dudley Buxton very truly points out that we may learn quite as much from "anxious cases" as from deaths. It fortunately falls to the lot of few of us to see an actual death from an anæsthetic; but we have all of us seen many cases where life has seemed to hang in the balance, and it is from these cases that we learn far more than we do from the *post mortem* table. If chloroform be the anæsthetic employed, how common it is to find a sudden fall in the force of the pulse, a pallor of the countenance, and everything indicating failure of the heart's action, even while respiration is proceeding quite evenly and regularly. If in such a case as this we adopt the method, first taught us by Nélaton, of inverting the body, we find the colour return to the cheeks and the force to the pulse; and what possible explanation can be given to these phenomena except that the chloroform was acting as a cardiac depressant?

On the other hand, when ether is the anæsthetic employed, such occurrences as these are unknown: the face always remains a good colour, and the force of the pulse vigorous; in fact, almost the only danger we have to guard against is that of asphyxia; and this gives us a feeling of security which we never feel with chloroform.

The effect of the Hyderabad Commission will doubtless be to give an impetus to the use of chloroform; but whether this will be for good or ill, time will prove. The fear is that it will give a sense of false security to the great body of medical men, who naturally prefer the simpler anæsthetic, and it will prevent them from feeling the necessity of using the one more difficult to administer, though less dangerous in its results.

CASES OF SEPTIC THROMBOSIS OF THE LATERAL SINUS.

BY

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Two cases of septic thrombosis of the lateral sinus have recently come under my care, in the Bristol General Hospital, which are of sufficient interest to put on record.

The first case was that of a man aged 38, admitted on December 29th, 1890. He stated that he had suffered from a discharge from the left ear for the last two or three years, with some deafness, which had been worse during the last three months. About twelve months ago he had received an injury to the left side of his head, and had frequently felt pain there since. About a month before admission he was exposed to cold, having to stand about in the damp, when his present illness commenced somewhat suddenly with pain in the head and vomiting. For the last three weeks he had been rapidly getting worse, vomiting frequently and with the pain much increased. For the last two weeks he had been feverish, and during the week before admission he had had two or three rigors a day. For the last two or three days he had been "queer" in the head, and complained also of pain in the neck.

On admission he was very restless and irritable,

strongly resisting being examined. An old scar was found about 1½ inch above the left ear. The head was inclined to the left side, and a firm, hard cord was felt along the course of the left internal jugular vein, which extended almost as far as the sterno-clavicular joint. This cord was very tender. There was no pain or tenderness over the mastoid process; nor was there any œdema of the skin over it. On examining the ears, not much discharge was found in the meatus; both drums were found to be perforated, the perforation being larger on the left side. Double optic neuritis existed. The patient lay in bed, keeping in a coiled-up position on his left side, and was very irritable and resented being disturbed. All the other organs of the body were normal, and no pyæmic abscess could be found anywhere.

At 6 p.m. on the night of his admission he had a rigor; after that he became more restless, and was delirious. At 11 p.m. he had a second rigor, and a third during the night. The following day the patient was in a semi-comatose condition. He was treated with calomel and quinine. He continued to have rigors at frequent intervals, the temperature also keeping very high, and, getting gradually more and more exhausted, he died on January 3rd. Poultices had been applied to the neck; and it was noticed that the hard cord, during the time he was alive in the Hospital, became gradually softer. The vomiting almost entirely ceased after his admission. No paralysis of any kind was noticed; nor were there any localising signs of a lesion of the brain.

When I was called to see the patient on the evening of his admission, the nature of his condition was quite evident; the difficulty lay in what could be done, as it was manifest that he was in a very critical state. The

question of ligaturing the internal jugular vein and trephining the lateral sinus and washing out the septic clots, as carried out by Lane and Ballance in their successful cases, arose; but this I was obliged to regretfully put on one side, because the phlebitis had extended down the internal jugular so far as to make it impossible to ligature it beyond the thrombosis, and because I thought it possible an abscess of the brain existed in addition. This was proved to be the case at the *post mortem* examination. No trouble seemed to exist in the mastoid cells, and, therefore, these I did not trephine.

The result of the *post mortem* examination was as follows :—

The left internal jugular vein, from jugular foramen to junction with subclavian, had its inner coat softened, and was covered with a thin adherent broken-down clot in places, and filled with a puriform fluid. The vein was matted by periphlebitic inflammation, and was inseparable from the other structures in the carotid sheath. This would have made ligaturing it a very difficult task.

The longitudinal sinus contained a little clot. The *left* lateral sinus a little more. The inferior petrosal sinus showed through the dura mater as a yellowish broad layer. The walls of the lateral and inferior petrosal sinuses were all thickened, and there was also a little lymph around them; this could be traced to the jugular foramen. The contents of the sinuses appeared to consist of disorganised purplish-grey clot, and the internal linings of the vessels were stained deeply and roughened.

On removing the brain, pus escaped from the inferior surface of the left temporo-sphenoidal lobe, apparently from the breaking down of adhesions which united the lobe to the dura mater over the petrous bone, near its base on its

upper surface, just over the tympanic cavity. On the upper surface of the petrous bone also, the dura mater was raised and separated from it by a little semi-fluid material, and under this spot there was a patch of caries which led down into the tympanic cavity. The mastoid process was sclerosed, and the antrum lay at some depth from the surface and was full of caseous pus. The tympanum and antrum were separated from the sinus by thick and healthy bone, so that the sinus must have been infected by septic matter spreading from the carious spot on the superior surface of the petrous bone.

Brain externally, skull-cap, and dura mater, normal. No blocking of middle meningeal veins. At base, slight meningitis, chiefly within circle of Willis.

In the left temporo-sphenoidal lobe was an old abscess, the size of a small Tangerine orange, with firmly thickened fibrous walls, and containing pus which was not offensive. The abscess cavity was clearly demarcated by its thick walls from surrounding brain-tissue, which was healthy. It occupied the central part of lobe from before backwards, and came close to its inferior surface. The other parts of the brain were healthy, excepting that the ependyma lining the third and lateral ventricles was softened, and that there was a little lymph in the descending horn of the left lateral ventricle. The brain weighed 60½ oz.

Both pleural cavities were nearly obliterated by firm old adhesions. The lungs contained no infarcts: they were both œdematous, more especially the right lower lobe. The heart was large and flabby: muscle-wall pale and soft: weight 16 oz.

Nothing else of importance was noted.

The operation performed by Lane in one successful case, and by Ballance with two successful cases out of

four, is performed by them as follows: The sigmoid sinus is exposed by trephining with a one-inch trephine, the centre of the opening being one inch behind and quarter of an inch above the centre of the external meatus, measured along Reid's base-line. An extra-dural abscess sometimes exists under this situation, and the dura is often found to be in a sloughy condition. The sinus is now opened, and if found to be diseased and thrombosed, the internal jugular is next exposed in the upper part of the neck and divided between two ligatures. The proximal end of the vein is brought to the surface, and finally the clots and septic material washed out with a syringe and antiseptic lotion. Hemorrhage need not be feared, as if blood flows, it can easily be arrested by plugging the sinus with iodoform gauze.

Seeing how terribly fatal is phlebitis of the lateral sinus I think, although this looks a very heroic operation, that it holds out a chance in otherwise hopeless cases. Newton Pitt states in his *Goulstonian Lectures* that thrombosis is a very fatal lesion, but that there is some evidence to show that a few patients recover without operation, though probably only for a time, to die later of secondary effects such as abscess of brain, etc.

The second case was that of a boy aged 19, a collier, who was admitted on January 17th of this year. The history of his present illness was, that he had suffered from discharge from the ears since scarlet fever about seven years ago.

Illness began about four weeks ago with severe pain in the head, referred chiefly to the back of the right side and to the right ear. Shortly after the pain commenced the discharge from the right ear ceased. After the dis-

charge had stopped about a fortnight, it re-commenced but this did not lessen the pain in the least.

About fourteen days later, the right side of the neck at its upper part began to get very painful and stiff, so that the slightest movement of his neck gave him considerable pain. This had been getting worse daily.

The patient, a tall and rather thin youth, on admission looked worn, pale and very ill. Temperature, 102.4°. The right ear stands out from the head, and is more prominent than the left. Over right mastoid process there is considerable tenderness, and there is some slight œdema. There is great tenderness over the upper part of right sterno-mastoid, and beneath its anterior border can be felt indistinctly, owing to the tense condition of muscle and pain of examination, a tender cord. This part of the neck is fuller and more prominent than the corresponding part on the opposite side. There is some slight loss of power in the right side of the face, wrinkles not being so distinct as on the left. There is a yellowish, offensive discharge from the right meatus, in which there is no polypus. He can blow through by Valsalva's method. On the right side the watch could not be heard, either in contact or on the mastoid. The acoumeter could be heard at a distance of two inches from the ear, and could be heard on the mastoid by bone-conduction. Commencing optic neuritis was found in both eyes, but less marked in left.

On January 18th, the day after his admission, at 3 p.m., chloroform was administered, the mastoid gouged and antrum opened, evacuating about half a drachm of sweet pus which had been retained in antrum under great tension.

The day after the operation the severe pains had left

him, and he was quite easy; but facial paralysis was more marked, and he felt very weak and sick. Temperature was still very high, ranging from M. 102° to E. 104.6°. He was ordered antipyrin gr.x every four hours.

January 20th.—Had a rigor at 6 p.m. Vomited several times during the day. Temp.: M. 101°, E. 102°.

January 21st.—Red patch had formed on extensor surface of the left arm, from which he complained of much pain and tenderness. From this date he began slowly to improve, the vomiting ceasing and the temperature coming down slightly, but ranging now from 99° to 103°, and he still continued to have rigors.

On February 3rd, fluctuation was detected in the swelling in the left forearm. Tenderness of the upper part of the right side of the neck was almost entirely gone. Some thickening still to be detected, but distinct cord-like feel had disappeared. Chloroform was administered on this day, and an incision made into the swelling in the forearm, half an ounce of pus being let out.

After this date he rapidly improved, temperature steadily subsiding, and he left the Hospital on March 2nd, quite well.

The first of these cases was, unfortunately, admitted too late for any kind of surgical treatment. The second shows that where the origin of the disease can be attacked, a much less serious operation than that proposed by Ballance will often be sufficient to cure the patient. In the larger number of cases the antrum is not where the origin of septic phlebitis lies; direct or indirect infection from the tympanum is more common, as in the case of the first patient.

Each of these cases presented an almost perfect clinical picture of septic phlebitis. There were present:

1st, the chronic discharge from the ear; 2nd, pain in the head; 3rd, vomiting; 4th, optic neuritis; 5th, œdema behind ear in the second case; 6th, pain and stiffness of the neck; 7th, a hard cord in situation of internal jugular; 8th, rigors and a high temperature.

These two cases are examples of the many serious results which have their origin in a chronic discharge from the ear; and the question which ought naturally to arise is, "What can be done to prevent or cure these chronic discharges?"

Without going into the matter further, I will simply state that a discharge can and should be prevented becoming chronic; and if already chronic, can by proper treatment usually be cured. The bane of aural surgery is the slight importance that is attached by people to the commencement of aural disease; and where otorrhœa exists it is of frequent occurrence for patients to ask if serious results will not follow if the discharge is stopped. The usual history of these cases is, that acute otitis media has imperfect or no treatment; the discharge soon becomes septic, and frequently not till then do the cases come into the hands of the aural surgeon, who has no easy task before him to purify the recesses of the ear and treat the complications within the ear that exist with chronic discharge.

The most serious of these complications are: 1st, polypus; 2nd, acute inflammations following cold or injury; 3rd, caseous masses or pus retained under tension in the tympanum or antrum.

Polypi and acute inflammations are likely to lead to still graver trouble when they cause obstruction to the free flow of pus from the tympanum or antrum. Caseous masses are the outcome of imperfect drainage from the

ear: these masses frequently lead to retention of pus by blocking a small opening in the drum-head. The treatment of these conditions I will not discuss, but I would like to point out that many a life may be saved by such a minor operation as these conditions require. The operation of trephining the mastoid antrum, which I have very frequently had to perform, is best done with a gouge and drill. The trephine used here is dangerous, as the lateral sinus may be inadvertently opened.

Besides this case of recovery of phlebitis of the lateral sinus, I have had other interesting cases, one of which had been diagnosed as meningitis, and where the patient was semi-comatose; and others where the symptoms have looked very ugly, but have entirely cleared up after a proper opening had been made into the mastoid antrum, and that cavity drained.

CASE OF TUMOUR OF THE PONS.

BY

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ON July 14th, 1890, Reginald P., æt. six, was taken to Dr. Shingleton Smith, on whose behalf I subsequently attended the patient, and who has kindly allowed me to publish the following brief history of the case.

In the Easter holidays of 1889, R. P. was noticed to be tiresome and fretful; but he went back to school at Whitchurch, and there was no complaint of him whilst

there, excepting that he had been observed to tumble. He came home for the holidays at the end of June, and he seemed lively and well, but he tumbled about, stumbling at nothing and falling forwards. At Whitsuntide he drove out with his uncle, and he then got out of the trap and ran about, but whilst doing so he was observed to turn round like a top and fall down. He was slightly hydrocephalic.

There was no evidence of syphilis or tubercle, nor any history of convulsions. When first seen by Dr. Smith, his condition was as follows: Face a little drawn to the right: strabismus, the right external rectus being weak: pupils large and inactive: left optic disc blurred: tongue protruded straight: gait unsteady, but no dragging of either leg: patellar tendon-reflex normal: upper limbs not markedly affected, the grasp ood and equal.

He does not complain of headache, sleeps fairly well, but is restless, and "can't keep the clothes on him." Is very irritable, and subject to violent fits of temper. No vomiting. Hearing good; no discharge from the ears.

Urine: no albumen, trace of sugar. Sp. gr. 1030.

An intracranial tumour was diagnosed, probably in the neighbourhood of the pons.

July 20th. The symptoms have become more marked; he is still able to walk, but is very unsteady, and the left leg drags at times. Chorea-like jactitation of face muscles, he never keeps still. He has no pain anywhere, sleeps fairly well, appetite good, no vomiting. Pupils large and inactive, but there is no defect of vision or of hearing. Right external rectus weak.

July 26th. The right facial muscles weak and twitch-

ing. Strabismus more marked; the right sixth nerve is paralysed. He sleeps better, but is very irritable. Has vomited on two occasions since the last visit. No giddiness.

August 2nd. The patient gets weaker and falls about more, and cannot get up alone. His left arm is decidedly weaker than the right, but is not paralysed. Mouth dribbles. Right external rectus paralysed. Optic discs clear. There has been no more vomiting. Pulse 108, regular. Temperature normal.

August 18th. Is getting steadily worse; he dribbles considerably, and yawns continuously. No vomiting; no pain. The left-hand grasp is feeble, in fact he does not use the left hand at all now; he cannot use a knife and fork. Patellar tendon-reflex exaggerated on the left side; no ankle-clonus.

August 22nd. Paresis of the left hand is more marked, otherwise the condition is much the same.

September 16th. Patient is very weak; the left arm completely paralysed, the left leg almost so. Has had no convulsions and no pain. Died, the same day, from exhaustion.

The autopsy was made on the following day. All the ventricles and sub-arachnoid spaces were distended with fluid, and displayed the usual conditions in chronic hydrocephalus. The central parts of the cerebral hemispheres were softened.

The whole of the pons was involved in new growth, and was much swollen on its anterior surface, and bulging above into the fourth ventricle.

Both crura cerebri were likewise enlarged by the extension of the growth, and the structures and nerves in relation with the pons and crura distorted and compressed,

as shown in the drawing, which gives the actual size of the parts represented.

Description of the Drawing.

The base of the brain from the optic chiasma to the medulla oblongata is represented. From above downwards are seen the optic tracts running over the crura cerebri to form the chiasma, below which the posterior perforated space and corpora albicantia appear. On either side are the crura cerebri, the right crus especially being considerably enlarged by the infiltrating growth, and lying on the crura are the 3rd nerves, both very much flattened, and coming forward between the posterior cerebral and superior cerebellar arteries. The 4th nerve on the right side is seen. The enormously swollen pons shows the greatest enlargement in the right half, and in the deep central groove lies the basilar artery, almost concealed by the overhanging lateral swellings. Coming forward from beneath the bulging posterior borders of the pons are the 6th nerves. Below the pons are seen the irregularly distributed vertebral arteries lying on the medulla. The amount of stretching and displacement of the parts may be estimated from the drawing.

The third nerves of both sides are seen flattened and displaced. The sixth nerves, too, are winding round the bulging posterior border of the tumour, especially that on the right side, which explains the paralytic condition of the right external rectus muscle.

Externally this infiltrating growth was colourless and almost translucent on the surface. Internally it was red and very vascular.

Microscopical examination showed that it consisted of small round and oval cells enclosed in a granular, finely fibrillated inter-cellular substance, a typical glioma.

This case, like the majority of gliomatous tumours of the pons, shows how impossible it is to determine the extent of the growth before death; for though the symptoms may enable one to roughly locate the tumour, the *post mortem* examination generally reveals a great deal more than the physical signs observed during life would lead one to suspect.

BUXTON: ITS BATHS AND CLIMATE.

BY

ALFRED J. H. CRESPI, M.R.C.S. Eng., M.R.C.P.I.

THE recent publication of an excellent book with this title, from the pen of Dr. Samuel Hyde, of Buxton, has directed much attention to a neighbourhood that in some respects has no rival in the United Kingdom. Buxton is in the very centre of the country, and stands higher above the sea-level than any other British town of moderate importance: on an elevated platform, thirty miles by fifteen, with a dry subsoil and comparatively

rarefied air, it is the nearest approach we have to a mountain town, and is, in a far-away fashion, the English counterpart of Davos-Platz. True, it has a keen winter, much frost and snow, and a rather heavy rainfall—51 inches;—but its climate undoubtedly possesses features totally unlike those of any other familiar health-resort.

In one very important particular we Englishmen can challenge the world—we never know what is meant by a real drought. Sometimes we have what we are pleased to call long spells of dry weather, and the trees begin to look brown and faded, while the grass turns yellow and the roads are deep in dust. But would an American, a Spaniard, an Australian dignify a few rainless weeks as a drought? Some parts of our larger island never suffer from the modified drought which is at long intervals experienced on the south coast; and among the districts where the grass is always green and the trees always springlike in their freshness, the dales of Derbyshire take a foremost rank. Five years last summer the weather had been sufficiently sultry and dry, and our Dorset roads were much in need of rain, while the well-supply was running short and some pumps had quite given out. Late that August I went to Matlock, and what a marvellous contrast met my eye! The day of my arrival in Derbyshire was wet and the sky overcast, and I must confess that wetter weather I have no wish to see; but compensations there were—the verdure, which had deserted some other parts of the land, had taken refuge there, and I found a second and even more beautiful Spring. But Derbyshire dales are famous for something besides their perennial freshness:—for timber of magnificent dimensions; shade so thick that not even the foliage near Plymouth surpasses it; hills commonly fertile and

well cultivated to their summits; sparkling rivers flowing merrily on, making sweet music as they go; and valleys which, when the sun shines upon them, are a foretaste of Paradise. Eliza Cook, in a few graceful lines, did full justice to this loveliness:

> "I was bound like a child by some magical story,
> Forgetting the South and Ionian vales,
> And felt that dear England had temples of glory
> Where any might worship in Derbyshire dales."

Had we only, in dear old England, three months of warm, sunny weather every year, who would care to wander to other lands? And the dales of Derbyshire would, during the summer, be crowded with visitors. Fortunately for lovers of rural solitude, our gloomy and uncertain climate drives many of our more fortunate countrymen to regions where the sun has greater power and shines with a persistency we never know, and so our inland and northern watering-places are seldom overcrowded.

South of Derby—at any rate near Birmingham—the country is not remarkable, being rather flat, not heavily timbered, and, though splendidly cultivated, refreshing only to fugitives from the crowded haunts of great cities, to whom any green field, any retired lane, is grateful. At Derby matters mend; but in spite of some pretty peeps, there is also a great deal of smoke, and the town, though clean and prosperous enough, is in parts dingy. As soon as Derby is left behind, the country becomes undulating, trees increase in size and number, the railway-cuttings are deeper, and the character of the scenery improves; and when we reach Ambergate, the junction for Sheffield, the woods, hills, and dales around prepare us for still greater beauties. Let us stop for a few hours at Matlock,

cross the Derwent, and wander along the principal street of that most charming of watering-places: to our left rise richly-wooded heights; to our right stretch the irregularly-built but picturesque houses of Derwent Parade—town and country in actual juxtaposition, in Swiss fashion. From my childhood I had associated Buxton and Matlock with the most beautiful natural scenery; but circumstances did not admit of my paying a visit to them until five years ago. The weather in the district in which I live had been, as I have said above, extremely dry: for weeks we had had dust that would not have disgraced California; hedges, trees, grass, and gardens were turning brown; when, on the 26th of August, I slept at Derby, and next morning, before breakfast, ran on to Matlock and Buxton. The former was just awaking, and I had it pretty much to myself; but rain was descending in torrents that soon wetted me through and through. Such was my first visit. The wonderful verdure fascinated me; and the impression made has never been obliterated, though I have seen Matlock six times since, and generally under more propitious skies.

Going through Matlock a mile or so to Cromford, the rocks soon become grandly precipitous, rising 200 and 300 feet in almost perpendicular elevation. Cromford itself is mean, with only about a couple of hundred rather shabby houses, and a small unpretending church exquisitely hidden in a setting of fairy-like beauty. It has only one object of great interest, Willersly Castle, the residence of the Arkwrights. Should the road through Cromford be followed to Wirksworth, the latter is reached in an hour; but it offers little to interest: the church, generally the one large and beautiful building in an old English

market-town, deserves no comment; while the newer streets, though in places broad and in marked contrast to the narrowness of some of the older carriage-ways, are sufficiently commonplace. A friend of mine (now with the majority) was Head Master of the Grammar School, and I often used to hear of the glories of Wirksworth and its neighbourhood; but my first visit, after my friend's removal to Sheffield, hardly came up to my expectation. Near Cromford, however, there is a walk, the Via Gellia, which for beauty, picturesqueness, and bold effects, makes a deep impression,—the Via Gellia runs along a lovely and retired valley a mile or more in length, and winds along at the foot of two ranges of stupendous rocks. The road was cut at the expense of Mr. Philip Gell, of Hopton, and has a certain resemblance to the Cheddar cliffs. The latter are loftier and more stupendous at their commencement, but they lack the fertility and beauty of the Via Gellia and do not extend a quarter so far. From Matlock Bath station a pretty road leads to Matlock Bridge; or the visitor may continue his journey by train, skirting the river. All the way from Matlock to Buxton the scenery is exquisite, and in bright sunshine, the peeps along the valley surpass anything I have seen elsewhere; while every mile or two to Miller's Dale, the little junction for Buxton, one passes places of historic interest—Darley Dale, Bakewell, Rowsley, Chatsworth, and Haddon Hall: while among the most noteworthy ecclesiastical buildings of the district, Tideswell Church is a noble edifice, and is the glory of that country-side; it is sometimes, on account of its immense size and great beauty, by a strange confusion of language, called the "Cathedral of the Peak."

From Miller's Dale to Buxton is about five miles. The

country continues to rise gradually, and the vegetation tells of thinner soil and greater exposure; but the loveliness continues, and at intervals one sees stupendous masses of precipitous rocks, that would make the fortune of any other part of the country in attracting visitors; but in Peakland, where all is so beautiful, and deep valleys and lofty ridges meet the eye at every turn, no one thinks much of them.

On getting out at Buxton, the terminus of the branch, the visitor is struck by a departure from the usual order: towns, when natural shelter was important from scarcity of fuel and bad workmanship, used to be hidden away in deep, sheltered hollows; and it was not till the population increased, and the conveniences of life became commoner and greater, that buildings began to extend up the hills. But at Buxton there are two towns, which are rapidly being united: one—beautifully sheltered, richly wooded, and admirably built in a deep valley—is new; the other—of more antiquity and less pretension—is on higher ground and is freely exposed to the wind, and is not so heavily timbered; but residents maintain that, contrary to what one would expect, even Old Buxton is not much exposed, being effectually protected by the lofty hills surrounding it, which rise many hundreds of feet above every part of the town. New Buxton abounds in wealth and visitors. Its shops are handsome and filled with goods of excellent quality; while the streets, in favourable summer weather, are crowded with well-dressed and prosperous people, and it is not easy to imagine how so many thousands of persons can be stowed away.

Buxton is 33 miles north of Derby, and fully 1,100 feet above sea-level. The latter, in our latitude, is a great

elevation, and more thoroughly changes the character of the vegetation than 4,000 feet in Southern Europe. Round the town the hills reach a height of 2,000 feet, and are said to be an impervious barrier to all but the strongest gales. The approach to the town is by a ravine, along which flows the Derbyshire Wye on its way to join the Derwent. Five miles to the east of the town is Chee Tor, an almost perpendicular limestone rock 400 feet above the Wye. The Romans discovered almost every natural spring which was likely to benefit invalids, and they did not overlook Buxton; they had baths there, and they seem to have frequented it for many generations: while as a modern watering-place, it has been a general favourite over three hundred years.

Among matters of historic interest, Mary Stewart stayed at Buxton for a time, when in the custody of Lord Shrewsbury; and all lovers of Scott will remember how closely *Peveril of the Peak*, his longest novel, is connected with this neighbourhood.

Thomas Hobbes, in 1678, when he was in his 91st year, published a Latin poem, *De Mirabilibus Pecci*, in which he described the wonders of the Peak in the quaint language of that age; and the healing properties of the waters were even then fully recognised:

> "Unto St. Anne the fountain sacred is;
> With waters hot and cold its sources rise,
> And in its sulphur-veins there medicine lies:
> This cures the palsied members of the old,
> And cherishes the nerves grown stiff and cold;
> *Crutches the lame unto its brink convey;*
> *Returning, the ungrates fling them away.*"

Some time earlier, Dr. John Jones wrote his well-known book, *The Bathes of Bathes Ayde*: it was published in 1572. This accomplished physician closely studied the

composition and properties of the Buxton and the Bath waters, and seems to have divided his medical favours by practising sometimes in Somersetshire, sometimes in Nottinghamshire, and again in Derbyshire. In a book entitled *Buckstone's Bathes Benefyte*, published at the same time, Dr. Jones, speaking of the provision made for the accommodation of visitors to the Baths, anticipated the success which has attended the resort to those waters in modern times.

So that in the sixteenth century the reputation of the curative waters of Buxton was known far and wide, and many sufferers flocked to St. Anne's Well to be healed of divers painful maladies.

Poor Mary Queen of Scots paid repeated visits to Buxton to get such benefit as she could from its healing waters. Her first visit was in 1573, in the custody of the Earl of Shrewsbury.

Again, in 1576 and in 1580, we find her, still a prisoner in charge of the Earl of Shrewsbury, visiting Buxton. In a letter to Lord Burleigh, dated August 9th, 1580, the Earl writes:

"I cam heddar to Buxtons wt my charge, the 28 of July. She hadde a harde begynnenge of her jorney; for when she shuld have taken her horse, he started asyde, and therwith she fell and hurte her bake, wch she still complaines off, notwithstanding she applyes the bathe ons or twyse a daye. I doo strictly obsarve hur Maties com'andment, wrytten to me by yor L. in restreyninge all resorte to this place; nether dothe she see, nor is seene to any more than to hur owne pepell and such as I appoynt to atende: she hath nott come forthe of the house synce her cumynge, or shall nott before hur p'tynge."

The condition of poor Mary, sick in body and broken

in spirit, was very sad. She found relief for her pent-up feelings on her last visit, in 1582, by writing on a pane of glass in her room the following Latin lines:

"*Buxtona, quæ celebrabere nomine lymphæ,*
Forte mihi posthac non adeunda, vale!"

which have been somewhat freely translated thus:

"Buxton, whose fame thy milk-warm waters tell,
Whom I, perhaps, no more shall see, farewell!"

It is pleasant to think that her sufferings were relieved, for she wrote that: "It is incredible how the water has relaxed the tension of the nerves, and relieved my body of the dropsical humours with which, in consequence of my debility, it has been charged."

The springs supplying the baths are calcareous and chalybeate. The former are mostly tepid, with a temperature of 82° F., but some are quite cold. During the season, which now only lasts from June to October, the place is visited by many thousands, from all parts of the kingdom (and Dr. Hyde says, *of the world*), who make it their residence for a time; while enormous crowds of day excursionists go over from Derby and Nottingham, and some from even more distant places, such as Birmingham, Wolverhampton, Liverpool, and Manchester. Buxton is a convenient starting-point for excursions, and of late years it has been made very easy of access from all parts of the country. The waters are being increasingly used in indigestion, gout, rheumatism, and skin affections. The accommodation for visitors is large, and 4,000 at a time can be comfortably lodged. Like Ilfracombe, Bournemouth, and Matlock, it is mainly a town for invalids, with every convenience and attraction for the sick. It is justly proud of the Devonshire Hospital, its most famous public institution, which contains a hundred beds and

receives nearly a thousand patients yearly, who are boarded and treated gratuitously. The rise and magnificence of Buxton is greatly owing to the Dukes of Devonshire. One duke, in the last century, spent £120,000 erecting, close to the site of the railway terminus and between the towns, The Crescent, an immense three-storied range of buildings of gritstone. The main part of this is a vast curve, extending 200 feet, with wings 58 feet long. It contains two large hotels, a library, and some handsome shops.

Mr. Edward Bradbury, in a recently-published work called *Pictures of the Peak*, gives a charming description of Buxton in the last century. I take the following passages:

"Some places are analogous with people. They have their youth and manhood, their ripe old age and tottering decay. As with the individual, so with the town. It is a story of rise and progress, prosperity and opulence, decline and fall. Some towns reverse this rule. As they grow older they become younger, and advancing years only bring with them higher spirits, brighter looks, increased power, and more vivacious vitality. Buxton was a place of established reputation before the existence of some modern cities, and when great manufacturing centres, with their teeming, toiling populations, remained unreclaimed from moss and marsh and moor. Yet Buxton is younger to-day than it was when Mary Queen of Scots counted her rosary at the Old Hall, and those foppish courtiers, Leicester and Burleigh, in slashed and puffed doublets, velvet cloaks and jewelled belts, drank the waters and strutted with swaggering gait on the bowling-green. Two thousand years ago, the Spa of the Peak was in its teens. Unsightly tenements have been replaced

by handsome buildings, and unsavoury alleys by spacious thoroughfares. Some picturesque old edifices have been demolished—quaint, half-timbered, latticed-windowed, high-gabled bits of architecture, grey with age, and wrinkled with russet reminiscences—that an artist would have spared. But comfortable cottages have succeeded cave-dwellings, and tumble-down houses have been improved off to make way for elegant villas and imposing terraces, great hotels and halls of health. An old, grubby lime-stone chrysalis has been metamorphosed into the brightest of architectural butterflies. The translation has been a protracted one, for the Peak district is famous for its 'fossils,' and the petrifying process sometimes congeals mind as well as matter. In the reign of Beau Nash, Bath was a more fashionable residential place than Buxton is in the ninth decade of the nineteenth century, and its buildings were quite as pretentious, thanks to the genius of Wood, an architect who made artistic use of natural advantages. In the time of the Tudors, however, Bath was more celebrated for its wool than its waters; while Buxton was the Mecca of pilgrims from all parts, who were attracted by the medical fame of St. Anne's Well, and who left their crutches at the shrine in evidence of the relief which they had found from their sufferings. But it is not much more than a hundred years since Buxton really emerged from an uncouth moorland village into an aristocratic watering-place.

"The Pump Room of a hundred years ago compares very favourably with the shabby apology for such an institution which exists to-day. The springs bubbled up in sparkling purity into glistening marble basins, and there was an absence of the vulgar public-house beer-handles that decorate the counter of the present meagre

apartment, which is deemed good enough to receive the visitor accustomed to the superb pump-rooms and Kursaals of the Continent. St. John's Church, with its *hôtel-de-ville*-like exterior and Turkish-bath-like ceiling, was not erected until 1812. A century ago the hotels competed with the tottering Chapel of St. Anne's in offering spiritual edification to Buxton visitors. A clergyman—the Rev. Mr. Thorpe—attended daily at the Old Hall, saying grace and reading prayers. He was well paid for his pious pains. 'As a reward for his trouble, when the cloth is removed, and he has left the room, the principal gentleman at the table goes round with the plate to the company, who give what they please; never less than a shilling, and a few more a *piece*, which amounted generally to four pounds.' Think of that, churchwardens of St. John's and St. James's, when all the preaching of the most powerful pulpiteers cannot extricate your funds from debt! But it was not all sermons and soda-water at Buxton a hundred years ago. The visitors gambled as much as they did at Bath during the Regency, and the preponderance of people who subscribed to the Card Room over those who supported the Church, gave rise to the satirical lines:

> 'The Church and Rooms the other day
> Open'd their books for prayer and play:
> The priest got *twelve*, Hoyle sixty-seven;
> How great the odds for Hell 'gainst Heaven!'

"There were amusements in plenty in 1788. The Duke of Devonshire surpassed Mæcenas in the opulency of his patronage. He provided a private band at his personal cost. The races were permanently fixed for the Wednesday and Thursday following the first Sunday after Trinity. A subscription pack of harriers was kept in the

neighbourhood. The best London talent appeared at the Theatre, for the metropolitan playhouses were closed during the Buxton season. The performance commenced at six o'clock, the latest hour for *table d'hôte* being four o'clock. The Assembly Room was the scene of aristocratic dances. The White Hart sent its respectful compliments to the Angel, and asked its company to its dance after supper. Other inns exchanged mutual courtesies of this description. There were no bath-chairs: it was the age of sedan-chairs. Oil lamps in the streets made the darkness visible. Linkmen with flaring torches were the escort of ball parties. The Assembly Room was a blaze of wax-candles in crystal chandeliers. Wandering about the Crescent in the moonlight, I peopled the eloquent place with the phantoms of the past; with crush of fashion and galaxy of beauty; with Youth and Hope and Dreams; with Avarice and Hate and Despair; with Love and Lust, Ambition and Failure; with Lady Teazle and Joseph Surface, Sir Benjamin Backbite and Lady Sneerwell, tender Maria and honest Rowley; with wigs and patches *à la Grecque*, hoops and red-heeled shoes, glistening sword-hilts and cocked-hats. The sedan-chairs set down radiant beauties with powdered hair and jewelled dresses, chaperones and dowagers, fine old 'bucks' and gallant beaux with marvellous wigs, coats of Tyrian bloom, bravely embroidered waistcoats, and garter-blue-silk breeches and dangling swords. The windows send yellow shafts of light across the roadway. Music floats in the night air. It is a stately minuet. There is a ripple of laughter in the intervals, and everybody seems to be talking to everybody else. The music starts again, and there is the *frou-frou* of silk and brocade on the ball-room floor. I should like to join the dancers; but I must first

go home and array myself in a full-skirted murrey-coloured coat, don a flowered waistcoat, encase my legs in breeches of sarsenet, put on silk stockings, comb my bag-wig, and further adorn my person with fine lace ruffles and a jabot. But what is the use of these vanities? The gay company upstairs have long gone home. It is only the wandering shadows of a hundred years ago that haunt the Crescent to-night."

A radical change has come over English society: the aristocratic and opulent no longer desert London *en masse* for any provincial town and make it their residence for many months. With tenfold more travelling and twenty times more money than a century and a half ago, people of quality run to any place that takes their fancy at almost any season—it may be this year going to Scotland, next to Italy, the year after to some unheard-of hamlet on the Cornish or the Norfolk coast, and the longer journeys are filled in with nearly twice as many short ones. Watering-places, though more prosperous than ever, are no longer what they once were: society no longer migrates to Tunbridge Wells or Bath, Cheltenham or Buxton; and if perchance a few peers and their families stay half a dozen weeks in one of these places, there is nothing in their habits, appearance, or dress to distinguish them from other educated, affluent people. But though the people have altered, the natural features remain unchanged, and Buxton and Matlock grow on one as do few other places.

Near Buxton is Diamond Hill, remarkable for its crystals; and Poole's Hole, a stalactite cavern a quarter of a mile long. The Baths, too, which were rebuilt some years ago, are among the finest in Europe. With all these natural and artificial attractions, it is not surprising

that the population of the town and its suburbs is growing fast, and increased from 3,717 in 1871 to nearly 7,000 in 1881, and must now considerably exceed 10,000; while building continues in all directions.

During my last visit, unfortunately far too brief and hurried, I was the guest of my friend Dr. Hyde, who, besides the more pretentious work which gives its name to this article, is the author of a smaller but very useful book called *Peakland*. Dr. Hyde is the resident physician of the Peak Hydropathic Establishment, which has lately been greatly enlarged, and is now fitted up with the most perfect modern contrivances. In proof of what Buxton can offer in the way of comforts and advantages, and as showing the progress which modern establishments for the relief of invalids are making, I cannot do better than describe the arrangements. The house is lighted throughout by the incandescent electric light; it has a hydraulic passenger-lift, and it is warmed in every part with hot water. It is boldly situated on rising ground, only five minutes from the station; and it is also close to the public gardens, the shops, and the baths. It has a magnificent drawing- and music-room, one hundred feet long; the table is well supplied, and the six o'clock dinner is a model of what a public *table d'hôte* should be, while the charges are moderate when allowance is made for the sumptuousness of the entertainment. Inmates in Water-Cure establishments are no longer subjected to the very severe regimen and harsh treatment of half a century ago. Many of the visitors, indeed, are in perfect health, and accompany friends; others prefer the lively society and good sanitary arrangements of such a home, to private lodgings: so that there is nothing depressing in a residence in them.

Health-resorts depend for their prosperity absolutely

on the perfection and cheapness of their boarding-houses, hotels, and hydropathic establishments, and in few places is there less room for improvement than at Buxton; indeed, it seems impossible to make important changes, for everything is as good as can be—the *ne plus ultra* of perfection is almost reached.

The air of Buxton is sharp and often cold—that follows from the inland situation of the town and its great elevation—and comparatively few people would choose it as a winter residence. Dr. Hyde is nevertheless making strenuous efforts to give it a winter as well as a summer season, and is urging the residents to second him in his undertaking; and he begs them not to talk of "the season," but of the summer and of the winter seasons. At first sight, it hardly looks as though he could succeed. If there is one thing that invalids dread, it is cold and gloom, and it would greatly surprise me if they deserted Ilfracombe, Falmouth, Jersey, and Bournemouth for a town six to eight degrees colder in mid-winter, and with much less sunlight at all seasons. Nevertheless, Dr. Hyde, whose ability and experience are beyond dispute, stoutly maintains that he is right, and that Buxton ought to have a prosperous winter season; for the cold is quite bearable and the air fresh and invigorating in ordinary winters. Indeed, he argues that it is an excellent winter station in early consumption. Some cases may be benefited by the cold upland air, and experience will show which they are. Certainly invalids from warmer and more sheltered regions sometimes speak gratefully in its praise. A gentleman from Wimborne, who was in the neighbourhood of Buxton in the late autumn, a few years ago, tells me that he enjoyed his ante-breakfast walk wonderfully, though there was no dearth of snow and frost.

It should not be overlooked that great part of the benefit of a residence in such a town is due to the complete change and rest; so that, in spite of a less genial winter than that of the south and west coasts, a few weeks in a well-found hydropathic establishment of the first order, or in some nicely-managed boarding-house, may be a real treat: and it is something to be surrounded by fresh faces, and to hear unaccustomed voices.

The mean temperature of the year is 45.2°; while that of Greenwich is 49.12°, and that of Barnstaple, Falmouth, and Helston, 51.5°. Buxton is, therefore, over 6° colder, while in the matter of sunlight it has barely half the number of hours to be counted upon at Wimborne, Romsey, and Hastings. Dr. Hyde, however, says that the colder the season the greater the proportion of recoveries, and the more decided the improvement in the condition of visitors. This, he adds, was especially seen in the summer of 1888, when patients did much better than in 1887. Not being an invalid, I can hardly speak with authority; though I am ready to confess that had I leisure and means, there are few places which I should choose with greater delight than Buxton and Matlock for a brief holiday. Never, however, being fortunate enough to have any holidays, I can only speak of Buxton as I have found it when I have been called there on professional engagements; and as a place attractive to a degree, with an indescribably beautiful neighbourhood, it seems to me to deserve far more attention than it has yet received.

Progress of the Medical Sciences.

MEDICINE.

The value of tuberculin was a subject much discussed in the various sections of the British Medical Association meeting at Bournemouth. The President of the Therapeutic section, Dr. Snow, initiated a discussion on "Koch's Treatment," and various papers were read by Dr. Coghill, Sir Walter Foster, Dr. Markham Skerritt, Dr. J. K. Fowler, and others. At the same time "The Etiology and Prevention of Phthisis" was being discussed in the Medicine section, and "The Value of Professor Koch's Method in the Treatment of External Tuberculosis" was being discussed in the section of Surgery. It is not my intention to enter fully into this topic, inasmuch as I could only repeat the observations made in our last number; it was anticipated that the annual meeting might sound the death-knell of tuberculin as a therapeutic agent, and certainly no very enthusiastic remarks were made in its favour. It is to be regretted that the subject was not discussed in a conjoined meeting of the various sections; the numerous discussions held in small meetings could lead to no very definite result, and only partial justice was done to the many and valuable contributions made. The literature of tuberculin is getting to be enormous, but we appear to be only on the threshold of the subject: we have learned that it is not a universal specific and that it is often dangerous, but nevertheless that it frequently gives results far superior to any other drug. We are now only beginning to discover that the drug is a complex one, and that its various components have effects, some of an injurious and some of a remedial character. Dr. Wm. Hunter's elaborate investigation recorded in the *British Medical Journal* of July 25th, and the work of Mr. Watson Cheyne on the action of the chemical derivatives of tuberculin, are the foundation of what may lead to more important discoveries of the future. It has been clearly shown that the fluid is not a vaccine: it contains no micro-organism, it has no vitality, and is not capable of self-

reproduction; neither is it an attenuated virus resembling that of anthrax or rabies. The question "What can it be?" is well discussed in the *Annual of the Universal Medical Sciences*, 1891, where it is pointed out that bacteria take from the nutrient gelatin certain elements necessary for their development, and they leave the gelatin in a state of partial chemical decomposition: unstable chemical elements result, these come together, and form new compounds; among these new chemical compounds are the new series of alkaloids called ptomaines, of such unstable chemical nature that we are unable to separate, to analyse, or determine their chemical symbols. The various toxalbumins resulting from the development of the bacillus of tubercle are now being slowly separated and their therapeutic value learned.

We have good grounds to hope that, as the year now ended has shattered the hopes and expectations of those who in an outburst of enthusiasm anticipated too much, so the coming year may give us more exact views as to the nature, the composition, the properties, and the therapeutic value of one of the most powerful agents ever employed in the treatment of disease. It is easy to decry bacteriology, and those who know least of it do so the loudest, but a perusal of the work of this section at the recent Congress of Hygiene and Demography will convince the most incredulous of the increasing importance of the subject in the etiology of disease. We have not yet fathomed the mysteries of tuberculin: at present it may be under a cloud, but light may yet come, and may give some one or other of its derivatives an established position in the therapeutics of the future.

* * * *

Meanwhile the investigations on Cancer as an Infective Disease bid fair to be of surpassing interest and importance. Mr. Ballance, in his paper on this subject on the second day of the Congress, described various transplanting experiments he, in conjunction with Mr. Shattock, had performed. These had so far given only negative results in transplanting from man to animals, although successful from dog to dog. He pointed out the geographical distribution of cancer, it being especially prevalent along the course of rivers which overflow their banks. In conclusion, he thought there were urgent reasons for believing cancer to be a micro-parasitic disease. Dr. Sheridan Delépine's paper on "Psorospermosis, and its Relation to Malignant Epithelial Tumours" directed attention to a subject on which little is yet known; the author could not prove that the psorosperms are the cause of cancer or even

that they are always present, but he had found them in a very large proportion of malignant tumours examined, and they can be easily seen in specimens of malignant disease of the liver in rabbits. Numerous photographs of these bodies were exhibited on the screen by the electric lantern: they are like large oval epithelial cells, but differing in size; they have not yet been cultivated.

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The etiology and treatment of diphtheria have received much recent attention; numerous papers were presented to the Congress of Hygiene, and fresh evidence has steadily accumulated showing the importance of the Klebs-Loeffler bacillus in the early development of the disease. A parallel rise and fall of the mortality from typhoid fever and diphtheria in Tournai has been considered by Dr. E. Schrevens to indicate that both diseases are of fæcal origin; and the bacilli of Loeffler have been found to develop, progress, and and extend wherever filth and rubbish of all kinds are stored up. "Of capital importance," says Professor Welch, "is the establishment of the fact that the diphtheritic bacillus develops only locally at the site of infection, and does not invade the tissues or the circulation. It is found only in the diphtheritic pseudo-membrane, and not even in the subjacent mucous membrane. Indeed, it is only the superficial parts of the false membranes which contain the bacilli. The determination of this fact gives at once a clear and decisive answer to the long-mooted question as to the primarily local or constitutional nature of diphtheria. The germ which causes this disease not only makes its first appearance and multiplies where the pseudo-membrane is formed, but it does not even subsequently invade the blood and organs."[1]

It is, however, necessary to recognise at least two varieties of diphtheria, the one originating from the action of the Klebs-Loeffler bacillus, and the other produced by the action of microbes differing from these, with different symptoms and a different pathology. "The Klebs-Loeffler bacillus alighting upon the faucial or other mucous surface, or the skin denuded of its epidermis, obtains there a nidus favourable for its development and propagation, but it does not enter the interior of the system. It is not taken up by the lymph-ducts or blood-vessels and conveyed to the internal organs. It remains localised upon the surface, and produces there the characteristic inflammation. Acting solely upon superficial

[1] *Medical News*, May 16th, 1891.

parts, it cannot in itself produce systemic infection or blood-poisoning, but, as the venomous reptile or the bee secretes a poison which it communicates by its fang or sting, it produces a poison called a ptomaine, which is readily taken up by the lymphatics and blood-vessels and conveyed to every part of the system; and this ptomaine produces the systemic infection or poisoning from which so many of the victims of diphtheria perish." [1]

The observations of Brieger and Karl Fraenkel, those of Klein, of Bates, of Armand Ruffer, and numerous others, are in accord, and tend to show that the bacillary origin of true diphtheria is as well established as most of the accepted theories relating to the origin of the infectious diseases; not only is the bacillus found to be invariably present, but it may be made to produce a disease which has distinguishing characters, especially the production of a peculiar toxine, which brings about certain definite anatomical changes in the interior of the body—a peculiar paralysis and a nephritis, attended by an albuminuria which does not cause dropsy or uræmic poisoning.

As regards the cases of pseudo-diphtheria, the most common form of which occurs during the course of the eruptive fevers, numerous observers are in accord that the special bacillus is absent, but that the disease results from the agency of other microbes.

The specific origin of diphtheria is being more and more abundantly demonstrated, and hence the necessity for increasing cautions with regard to isolation and disinfection. The fact that the disease is to a great extent under control by local treatment in its early stages has led to that contempt, bred of familiarity, which scorns to appreciate the full danger resulting from unquestionable contagiousness. The degree of contagion is limited; just as in typhoid fever, in phthisis, in leprosy, the contagion is well under control; but nevertheless diphtheria must be dealt with on the lines on which all specific poisons are to be limited in their action on the individual and on the community around. Not only is isolation a necessity, but every effort should be made to destroy the contagium *in situ* before the microbes have had time to elaborate their poisons and infect the organism.

The treatment of the toxæmia resulting from the absorption of the poisonous principles produced by the bacilli must be conducted on general principles until some proper antidote to the special toxine has been discovered; meanwhile the

[1] *Annual of the Universal Medical Sciences*, 1891.

time-honoured perchloride of iron in combination with perchloride of mercury has given, and is giving, very satisfactory results.

* * * *

The revival of an old fallacy as to the therapeutic efficacy of olive oil in expelling large numbers of gallstones has led to much discussion of this topic, and the latest contributions from the Congress for Medicine at Wiesbaden are epitomised in the *Medical Chronicle* (August, 1891). In spite of the inherent improbability that any drug in the alimentary canal can cause the expulsion of gallstones, and in spite of the observations to which I have previously called attention,[1] that the so-called gallstones passed in hundreds or thousands after the administration of several ounces of olive oil are chemically composed of partially saponified oil with only minute traces of cholesterine, there still remains some clinical evidence in favour of the utility of this method of treatment. Possibly the oil may lubricate the passages, and have some mechanical action which may aid in the expulsion of a true cholesterine calculus, but that the oil will do what has been reported of it cannot be admitted, and there is little doubt that it is from the superficial resemblance of the semi-saponified masses of oil to true gallstones that the reputation of the method has been derived.

Durande's mixture of turpentine and ether, in the form of capsule, in doses of twenty to thirty minims, is certainly of clinical value, and the salicylate of soda is also useful; but there can be little question that constant and copious flushing with hot alkaline water is by far the most important means we have of modifying the tendency to the deposition of crystalline cholesterine in the form of calculi. If the patient, the case being a chronic one, can be persuaded to take a dose of four or six ounces of Lucca oil it can do no harm, and in some reported cases it appears to have been of benefit. In one case under my care such a dose was followed shortly afterwards by the expulsion of a small, round, smooth calculus of crystalline cholesterine, and the patient lived several years, but had no recurrence of biliary colic.

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In the Pathology section at Bournemouth, Dr. E. Lloyd Jones read a paper "On the Specific Gravity of the Blood in Disease." He appears to have so improved the method of taking the specific gravity of blood that it can be utilised for

[1] *Lancet*, vol. ii., 1881, p. 351.

clinical purposes, and he considers his results to be in every way more reliable than those of the hæmacytometer and hæmaglobinometer. A ready and trustworthy method of estimating the quality of the blood is likely to be of the utmost value, and will materially assist in the classification of our cases of anæmia, in accordance with the views of Dr. Hunter, into cases of defective hæmogenesis or increased hæmolysis, a classification which will aid in the determination of what kind of treatment is likely to be successful.

R. Shingleton Smith.

SURGERY.

On the subject of the operative treatment of diseases and injuries of nerves, Dr. John B. Deaver has an interesting paper in the *Medical News* of August 8th, and he has reported some cases on which he has operated. The most important of the diseases of the nerves for the relief of which operative treatment may be resorted to are:

I.—Painful affections, including neuralgia, neuritis, and neuroma.

II.—Local spasmodic affections, including such diseases as spasmodic torticollis, facial tic, tetany, and athetosis.

III.—Chronic contractures, including those the result of old traumatisms and those due to hysteria.

IV.—Sclerosis.

I. Cases in which the neuralgia can be traced to a known exciting cause, such as injury of a nerve, or pressure upon or irritation of nerve trunks, and such peripheral irritation as is present when the end of a nerve becomes involved in a cicatrix, offer the best outlook for operative interference. The so-called epileptiform neuralgia, which almost invariably attacks the face and involves any one or all of the three branches of the fifth nerve, is also favourable for operative treatment. This form of neuralgia consists of two main varieties: one in which the pain is accompanied by twitching of the facial muscles, and a second in which pain is the only pronounced symptom. Dr. Deaver reports three cases of this affection in which he removed the superior maxillary nerve with great relief of symptoms; three in which the inferior dental nerve or part of it was removed, with complete relief; and one case of excision of two inches of the long saphenous nerve for chronic neuritis, with perfect recovery. In explanation of the way in which operation does good in neuralgia, Dr. Deaver says it is probable that, in this

affection as in locomotor ataxia, the pains may sometimes be due to molecular disturbance, or impaired nutrition of the nerves themselves, or of the posterior root zones, or posterior horns of the cord. Operation probably changes the molecular arrangement of the nerves and nerve-centres, and stimulates nutrition.

In neuritis, according to the stage, we have a more or less high or low grade of inflammatory process. In the chronic stage of many cases, the inflammation has practically subsided and left an exudation and adhesion, the nerve being secondarily degenerated. Operation is useful in two or three ways: (1) By opening the sheath and breaking up any adhesions that may be present; (2) When degenerated, by disturbing the molecular condition of the nerve, and stimulating it to take on regenerative action; or (3) In those cases of chronic inflammation of a nerve in which physiological movements never allow it to be sufficiently long at rest to effect a cure, by removing a portion of the inflamed nerve, and thus getting rid of the constant irritation and giving rest.

Neuromata when found in the continuity of a nerve call for removal, which should be done with great care, to avoid dividing the nerve; if the nerve is divided, the ends should be immediately approximated by suture. When met with in stumps, removal if feasible is also to be practised; and when not feasible, re-amputation offers the only alternative. There is a variety of neuromata known as plexiform: Bowlby has described it as being made up partly of soft connective tissue and fat, imbedded in which are medullated nerve-fibres and white fibrous tissue. Dr. Deaver removed one such five years ago, and it has not recurred.

II. Dr. Deaver thinks the frequent failure of operation in cases of torticollis may be either: (1) Because the spasm may be caused by various muscles which have diverse nerve-supplies, or (2) Because the spasm is sometimes due to irritation reflected from sensory nerve areas to the motor area, as for instance from the major or minor occipital to the spinal accessory, or (3) Because the spasm is due to lesion of cortical or other encephalic centres.

In cases of facial tic, he thinks the frequent failure of stretching of the facial nerve is due to the simple reason that there is a degenerative lesion of the facial nucleus, or to cerebral irritation or degeneration.

In tetany, nerve-stretching may for a time arrest the tremor and twitchings associated with the spastic contractions, but the operation is not usually to be advised.

Nerve-stretching in the treatment of athetosis has not been of much avail, causing only temporary cessation of the clonic spasms and a paretic condition of the affected part. When the paresis passes off, tremor and spasm return. The lesion in these cases is usually situated in the cortex, or near the thalamus in the interior of the brain.

III. In old traumatic cases of chronic contractures of nerves, nerve stretching may do good by relief of the chronic neuritis and loosening of the attachments present. In hysterical contractures, if milder means fail, and the operation does good at all, it is by acting on the spinal centres, or by mental impression.

IV. The usual temporary effect of nerve-stretching in the treatment of lateral sclerosis is, that the spastic condition of the muscles is partially overcome, the tingling in the extremities disappears, locomotion is improved, and the reflexes are not changed; the benefit is not permanent either in this or in posterior sclerosis.

Dr. Deaver thinks that nerve-stretching has had rather a limited range of application, and he suggests that the neurologist and surgeon are justified in acquiring actual experience, by means of clinical experimentation, in other affections than those which have in the past been recognised as fit subjects.

Nerve Injuries.—The most common form of nerve injury for which the surgeon is commonly called upon to operate is division. Formerly, tetanus was dreaded as a complication in suture of divided nerve-ends. Since the days of antiseptic surgery, this is no longer feared. Dr. Deaver recommends that suturing should be practised in all cases of divided nerves, and that one or more aseptic silk sutures should be passed through the nerve, neurilemma and tubules inclusive, a short distance from either end, and drawn tight, making apposition perfect. Should there be a loss of substance in the nerve, he suggests: (1) That the cut end of the nerve should be split in such a way that by drawing down the section from the proximal end it can be united to a section from the distal end; (2) Unite the distal end of the divided nerve to a neighbouring nerve; (3) Implant a section of nerve taken from an amputated limb or from a lower animal; (4) That the divided ends be connected with strands of catgut, also to introduce a decalcified bone tube between the ends of the nerve, on the supposition that nerve tissue will be prolonged along the strands of gut or into the calibre of the tube.

I have found it a useful plan in suturing nerves to tie a bit

of the sheath on either side, about ¼ inch from the proximal end, with separate sutures, then a bit on either side of the distal end in the same way, and then tie together a proximal and distal suture on either side; these form stitches of relaxation, and, if necessary, a very fine catgut suture may be passed through both ends of the nerve to keep them in accurate apposition.

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M. Tuffier presented at a meeting of the Société de Chirurgie of Paris, in June, a patient on whom he practised, in March last, excision of the summit of the right lung, for localised tuberculosis. Before operation, he made several experiments. First he attempted through a small intercostal incision to separate the pleural covering from the lung and get a ligature round it; but although he found it easy enough to detach the pleura above, in front, and behind, it was not so on the inside; and as the thoracic duct and phrenic nerve are intimately adherent to the pleural layer, he was afraid of including them in the ligature, and consequently abandoned all attempts in that direction. Then various questions presented themselves: (1) How would the lung tissue bear a ligature? (2) What is the mode and rapidity of reparation of the loss of substance? (3) What should be feared from the innumerable vessels of the organ? (4) How would the void left in the thoracic cavity be filled? To answer these questions satisfactorily, he resected the summits of the lungs of several dogs, and the result of his experiments was that the wound rapidly healed and the void was quickly filled by expansion of the parenchyma, provided the part resected was not too considerable. The man operated on was 25, of stout build, and enjoyed good health until two months before operation, when he was attacked with cough, night-sweats, and tuberculous laryngitis, for which he entered the hospital. At the apex of the right lung, dulness, respiration rude and jerky, expiration prolonged, and dry crepitation on coughing were noted; the left lung was healthy.

Through an incision in the second intercostal space, the lung was reached and the pleura separated; the apex of the lung was then drawn forward with special flat forceps, a ligature thrown round it, and the pedicle fixed to the periosteum of the second rib. The resected part was then examined, and in its centre was found an induration the size of a small walnut, with tubercles round it in which bacilli existed. The man made a rapid recovery, and a minute

auscultation of the lung showed that the respiratory murmur, though a little weakened, was present throughout the whole organ, without revealing the slightest trace of a pleural effusion.[1]

Mr. James E. Thompson, in the *Medical Chronicle*,[2] quoting from Krecke, gives particulars of lung affections amenable to surgical treatment. Gangrene of the lung is specially suited to surgical measures: the stinking, loathsome expectoration is characteristic, and spontaneous cure is hardly to be expected. In gangrene with empyema, after letting out the pus, portions of one or two ribs should be resected, and a careful examination made of the surface of the lung; if one finds anywhere on the surface of the lung an irregular indurated spot, or soft focus, it should be laid open carefully with a thermo-cautery. Where empyema does not exist, the diagnosis is very difficult; the lung should be punctured again and again until one hits on some characteristic foul sanious fluid or putrid gas. In one case the lung was punctured as many as fifteen times, and at last a foul, brown, sanious fluid was procured; two ribs were resected, and a gangrenous focus opened. Iodoform gauze was stuffed in the wound; the patient improved for a time, but died shortly after from mischief in the other lung. The *post mortem* examination showed that the gangrenous patch had almost healed. Notwithstanding the high mortality, he advises operation in all cases. Slawyk had 14 cases and 8 recoveries; Seitz had 19 cases and 4 recoveries, while 4 more improved considerably.

In cases of abscess of the lung, the same rules hold good. Slawyk, out of 13 cases, had 3 recoveries; Seitz showed 11 cases, with 5 cures.

The treatment of bronchiectatic cavities is a little *sub judice*, because in addition to one large cavity there are often a number of smaller ones in various parts of the lung. Krecke operated on one case in which acute fever developed in the course of a chronic lung complaint, with dulness over a small area: the needle revealed pus there and none elsewhere; unfortunately, when the rib was resected, the lung collapsed, and he was unable to open the spot. The autopsy showed the presence of a bronchiectatic cavity.

In treating tuberculous cavities, the presence of further tuberculous processes has tended to frustrate all advance. Surgical interference ought only to be undertaken when single cavities are known to exist. He cites the case of a man

[1] *Therapeutic Gazette*, August 15, 1891. [2] August, 1891.

æt. 33, in whom a cavity gradually developed in the right lung. Suddenly septic fever, with rigors, intervened, and blocking of the communication between the cavity and the bronchus was diagnosed, with accumulation of fluid behind the obstruction; parts of two ribs were excised, and the pleural cavity was found obliterated at this spot; a pair of blunt forceps were thrust into the cavity through the lung tissue, and a free passage made for the pus; the cavity was cleared out and stuffed with iodoform gauze. Fever disappeared, and the condition of the patient became very much better.

It is in such cases as these that operation is certainly indicated. Krecke lays stress on some points of operation detail: (1) Always use a blunt instrument to perforate lung tissue; (2) In deep-seated foci, the incision ought to be made with a thermo-cautery; (3) Use tampons of sterilised gauze for plugging a cavity; (4) All washing of cavities should be discountenanced, lest the fluid should trickle into the bronchi and cause irritation.

W. J. PENNY.

GYNÆCOLOGY.

For the last four years Electricity has been more or less on its trial. By the majority it has been discarded as absolutely useless; the minority, who have really taken the trouble to thoroughly work out the subject, act otherwise.

There would be no object in entering into the various details of the subject here, as these can be learned from any ordinary text-book; but it is rather astonishing to read the opinions of writers who do not seem to understand the difference between the positive and negative currents, and apparently apply the treatment in a most haphazard manner, and then blame it because the patient is not cured.

As in everything else it is a matter of experience, and we must not expect to cure every disease to which woman is subject, or imagine that every particular class of ailment is certain to be benefited by it. It can be laid down with absolute certainty that the treatment has never, in the hands of those who understand it, done any harm or produced any serious symptom; and in a very large number of cases it has brought such relief to the unfortunate sufferers that we are amply justified in keeping it in our list of valuable remedies. In the first place, it is necessary that the person who intends to use this treatment should not so much have a knowledge

of electricity as of diseases of women, otherwise it is very easy to see that his results might not only be disastrous but even fatal; and there is no doubt that electricity has been applied in numberless cases where it was not in any way admissible.

In that large class of cases of myoma uteri its effect appears to be almost incredible; and when one is told by the patients themselves that the bleeding is much less, the pain has almost disappeared, and they have had to take in their dresses by five inches and a half round the waist, and that they really feel now life is worth living, there is a clear answer to those sceptics who say the treatment is useless, and that nothing short of removal of the ovaries or hysterectomy will be of any benefit. Although in competent hands these operations are almost void of risk, yet a very small percentage die; it is therefore right to give trial to a treatment which, without fear of contradiction, can be declared absolutely without any danger. In this class of cases the positive pole has been used within the uterus with all the necessary precautions that it is absolutely essential to take if success is to be attained.

It should, however, be always remembered that if myoma uteri is complicated by disease of the uterine appendages, electricity is almost worse than useless, and if it is persisted in, disappointment or worse may follow. Such cases, no doubt, should have the appendages removed, as we would remove any other part of the body (if diseased) that was possible. Removal of the appendages (if healthy) will not always check the hemorrhage in myoma uteri, and cases have already occurred in which the electrical treatment has been brought into use with great success when the above operation has altogether failed to improve the patient's condition.

In subinvolution of the uterus this treatment produces a most marked improvement, and it is only necessary to employ it as a rule on three or four separate occasions.

Patients who suffer from dysmenorrhœa are only too eager to try this remedy, and apparently not without reason, for if the symptoms are due to a narrow condition of the cervical canal, the intra-uterine use of the negative pole causes at once a dilatation, which remains permanent. I may also mention that pregnancy has quickly followed this treatment in a few cases of women who were married and sterile for years suffering from dysmenorrhœa. In the case of one woman who had been in this condition for three years, this occurred within eight weeks.

In many cases of pelvic pain, associated with a neurotic

mental condition, the Faradic current appears to produce alleviation, but at present I am not inclined to attach so much importance to the local effect, but more to the fact that to a large number of cases this is something quite new in treatment. It is also very easy of application, and can be entrusted to a nurse.

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In treating cases of chronic dyspepsia or obstinate vomiting, one should always bear in mind that there may be some uterine trouble existing, and to which one's attention may never be directed on account of the real lesion being so far from the apparent symptoms. These are really referred nerve symptoms or reflex phenomena, brought about by means of the vaso-motor system, the centre of which is in the medulla and grey matter of the cord. Chronic endometritis or some slight retroflexion of the uterus may be the cause of these referred neuroses, and the introduction of a properly fitting pessary or some local application to the cervix and os uteri will frequently act as a charm, and perform an almost miraculous cure on a chronic invalid.

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Dr. Herman writes of fungous endometritis in two forms (1) the hyperplastic; (2) the polypoid. Bimanually the uterus is found to be slightly enlarged, and the cavity of the body is found to be expanded if the cervix is dilated. The chief symptoms are hemorrhage, with a watery discharge in the intervals. The best treatment is to scrape away the diseased mucous membrane with a curette and then apply caustics, and, above all, to use the curette in the polypoid form. This treatment is as a rule followed by complete recovery, and subsequent fertility is not interfered with.

Whether some of these cases have any relation to malignant disease is at present in great doubt; at any rate, some of them ultimately die of cancer, when apparently the original disease has for a time been in complete abeyance; and the explanation that naturally suggests itself is that the original diagnosis was a faulty one, but very competent judges assert that occasionally malignant disease does develop out of changes which at first had no such character.

Another most important and unfortunately most common form of endometritis is that produced by gonorrhœa. It has always been asserted that this starts first in the vagina, and then affects the cervix and later on the Fallopian tubes; but it is now quite an open question whether it is not possible for

a latent form of gonorrhœa to be started by communication in the cervix itself without any preliminary vaginal symptoms. If we believe that every case must have its origin in the vagina, then we surely ought to adopt some much more radical and effectual treatment in the early stages with a view of preventing the terrible consequences of the spread of the disease upwards. The ordinary syringe with some lotion or other is not only useless but absolutely harmful, and must help to carry the mischief onwards. Unfortunately we are forced to the conclusion that the disease in some cases starts in the cervix itself, and the ovaries and tubes are already affected before we are even consulted; and this apparently occurs where there has been no history of the gonorrhœa itself for perhaps five or six years before marriage, so that we are beginning to believe that the disease may lie dormant for almost an indefinite period, and a woman is more likely to be injuriously affected by a previous gonorrhœa even than by a previous specific history. When once this mischief has spread to the ovaries and tubes, it is really incurable, and they might as well be removed, for the patient must now be permanently sterile. Moreover, it is the shortest cure for these chronic invalids.

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There is hardly anything more difficult to diagnose than malignant disease of the interior of the uterus. Of course anyone can recognise a typical case, but then unfortunately it is generally too late. The ordinary medical attendant should always view with the greatest suspicion any irregular hemorrhage, especially if it should occur after the menopause, and he should never be satisfied until he has absolutely excluded the diagnosis of malignant disease. We must not expect to meet with the severe lancinating pain due to the exposure of nerve-endings by ulceration, or the offensive discharge caused by the advancement of the necrotic changes, or yet the cachexia due to septic absorption. Again, we must not expect that the hemorrhage should be profuse: occasionally it may be only a slight escape of blood after some undue exertion, and the patient may think it is simply some slight return of her menses. We ought to be able to differentiate accurately between malignant disease, hyperplastic endometritis, and sloughing fibroid, and it must not be forgotten that a small submucous polypus will often give rise to symptoms that closely resemble those of malignant disease.

The only certain way to settle the diagnosis in these doubtful cases is to dilate the cervical canal (I think

preferably with tents), and then explore the uterus with the finger and the curette.

Numerous cases have been recorded in which death has ensued from uncontrollable uterine hemorrhage, and on the *post mortem* table it has been found to be due to a polypus, submucous fibroid or retained product of conception, which could easily have been removed, and thus the patient's life been saved. If we insert a sponge tent into the cervix uteri, we at any rate arrest the hemorrhage for the time, and the danger of any reflux through the Fallopian tubes is merely visionary. The unscientific expedient of plugging the vagina should hardly ever be resorted to: it is practically useless, and does not assist us in any way to a further diagnosis.

W. H. C. NEWNHAM.

OPHTHALMOLOGY.

Nicati, in the *Archives D'Ophthalmologie*, has recently very fully described the "Gland of the Ciliary processes" which secretes the aqueous humour. The essential glandular structure is the epithelium, which extends from the ora serrata behind, to the base of the iris in front; completely covering the ciliary processes and the recesses between them. Its secreting surface is estimated to cover an area of six centimetres square.

The epithelium is of two distinct kinds, in two layers. The external is the direct continuation of the pigmented hexagonal outer layer of the retina, the cells of which become modified as they pass anteriorly: the internal layer consists of prismatic cells compressed together at their sides, so that they stand high or deep, rather than wide; they are modified from and directly continuous with the inner layers of the retina, more particularly with the ganglion cells. The rods and cones, together with the external granular layers, do not extend into the ciliary region but cease at the ora serrata.

Treacher Collins has more thoroughly examined the exact character and arrangement of these cells by a method of bleaching-out the pigment. He found the uveal pigment layer from the root of the iris to the ora serrata to be composed of a single row of somewhat flattened cells, projecting from the outer surface of which were numerous processes, each composed of a group of cells, tubular in arrangement, or even pear-shaped, and containing a small central lumen. These tubular processes he considers to be nothing else than secreting glands concerned in the elaboration of the aqueous humour and the nutrient fluids of the vitreous.

Nicati proceeds to consider the special anatomical arrangement of the blood-vessels. Outside the epithelium, and scarcely separated from it by a very thin reticulated tissue, lies the dense network of large capillaries (the anterior prolongation of the chorio capillaris) which supplies alimentation to the gland. He describes the chorio capillaris—first where it lies posterior to the ora serrata—as consisting of three coats: (1), the middle one, the capillary layer, separated on the inner side from the retina by, (2) the homogeneous membrane of Bruch, and on the outer side from the arteries and veins of the choroid by (3) the intervascular membrane of Sattler, which is perforated by the blood-vessels, to reach the capillaries. These two membranes form a complete sac lining the interior of the eyeball, from the optic nerve entrance forwards, and containing within it the capillaries. Both membranes are impermeable, so that any secretion which passes from the capillaries is retained within the sac and can only escape by passing forwards along it to the ciliary processes. Here in front of the ora serrata the arrangement is much modified: the capillaries become largely developed, while the membrane of Bruch, hitherto impermeable becomes so attenuated as to allow of easy exudation from the capillaries into the epithelial cells of the ciliary processes, whence the aqueous is secreted. Experiments show that the whole of the chorio capillaris participates in the elaboration of the aqueous fluid.

Nicati appears to hold the opinion that the membrane of Bruch prevents communication between the choroidal capillaries and the retina, and that the view usually held that the retina is nourished by the choroid is inaccurate.

Some facts may be quoted on the other side. The hyaline lamella which separates the retinal pigment from the choroidal capillaries is very thin, so that they are almost, if not quite, in contact: the vessels increase in number very considerably in the neighbourhood of the yellow spot, and at the fovea centralis vascular development attains its maximum: these parts of the retina where nutritive changes are most actively going on, necessitated by the photo-chemical processes in the cones, receive scant supply from the arteria centralis retinæ. Regeneration of the retinal purple takes place from the choroidal surface rather than from the side of the retina. Certain facts in comparative anatomy and in pathology also show the dependence of the central parts of the retina upon the choroid.

The arteries concerned in the blood-supply to the uveal gland are the long posterior ciliary, which pass forward

without entering the choroid and send numerous recurrent branches into the ciliary body. The short posterior and the anterior ciliary arteries are not concerned in this distribution. The veins run chiefly inside the muscle fibres towards the equator of the eye to join the vasa vorticosa. Muscular action thus influences the venous outflow rather than the arterial supply.

The aqueous humour leaves the gland by three main channels: (1), Petit's canal *(le canal godronné)*; (2), the posterior chamber; and (3), the inner projections of the ciliary processes, and the suspensory ligament. It may be here mentioned that other recent investigations show that the zonula is not a membrane so much as a meshwork of fibres which are attached to the whole free surface of the ciliary processes, excepting their inner rounded projections, and particularly to the recesses between them; some of the fibres appear to arise from within the epithelial cells. At the lens they pass to the equator as well as to the anterior and posterior surfaces.

The anterior chamber forms the reservoir for the aqueous conveyed to it by the channels just mentioned; from this no outlet is possible through Descemet's membrane, but absorption probably takes place through the lacunæ and spongy channels of the iris, and through the spaces of Fontana; the current goes along through the perivenous lymphatics, and finally empties into the blood stream of the anterior and posterior ciliary veins.

The tubular glands of the ciliary processes have been affected by tumours, adenomata and glandular carcinoma; and like secreting glands elsewhere they are very liable to catarrhal inflammation, a condition which is clinically known as serous iritis, but which might be better named serous cyclitis. Cases are found in practice which bear to ordinary iritis much the same relation that pleurisy does to pneumonia. The proper tissue of the iris is not primarily implicated but rather its uveal layer, and perhaps also very frequently the glands of the ciliary body. The classical symptoms of iritis are absent, there is neither discoloration nor narrowing of the pupil; no photophobia nor lacrymation; circumcorneal hyperæmia may or may not be present. The condition is extremely insidious and may have recurred at longer or shorter intervals without any anxiety on the part of the patient, who fancies he has had a slight cold in the eye. Meanwhile posterior synechiæ and cloudiness of the media come on. The affection is most common in women from thirty to fifty, and depends neither upon syphilis nor rheumatism, and

the remedies often useful in iritis do no good. Atropine is of little service, but a large iridectomy usually effects a cure.

The condition of the iris, and of the secretory channels of the ciliary gland, as affecting the secretion and excretion of the aqueous humour, is a point of much importance in the pathology of many faulty conditions of the eyeball, *e.g.* glaucoma, detachment of the retina, and irido-cyclitis.

Thus the outflow of the aqueous may be obstructed by various abnormal conditions of the iris, its congenital insufficiency, its progressive atrophy from senile rheumatism or gouty changes, or by the reduction in area of its absorbing surface due to any form of mydriasis, or by inflammatory engorgement of its tissues.

* * * *

Hypodermic medication, not very generally used excepting in the case of a small group of remedies, has received a considerable stimulus through the introduction of tuberculin. In addition to such local effects as are produced by cocaine and morphia may be mentioned the action of strychnia in optic nerve failure when the drug seems to be distinctly more efficacious if injected in the region of the orbit. At the recent meeting of the French Ophthalmological Society the subconjunctival injection of remedies for the treatment of various maladies in the eyes was recommended by M. Darier. He reported very favourably of this procedure, to which he has given a good trial in all kinds of cases, more especially in those of an infectious nature.

He injects $\frac{1}{20}$th of a milligramme of sublimate every three or four days by means of a Pravaz syringe rendered aseptic by $\frac{1}{20}$th carbolised glycerine, and he asserts that in cases of acute iritis, whether specific or no, in gumma of the iris and in keratitis, no other form of medication gives such favourable results in so short a time. He also says that good results have followed its use in neuritis, and in inflammations of the retina and choroid.

Abadie also speaks strongly in favour of this treatment. He has abandoned intra-ocular injections (*Bristol Med.-Chir. Journal*, March, 1891) in favour of the subconjunctival method. I have found it of value in inflammations of the episcleral tissue, but have no experience of it as affecting intra-ocular diseases. It is certainly not attended by risks such as those involved in intra-ocular injections. Much irritation sometimes follows the use of the sublimate, but this tendency is lessened by using fresh solutions in distilled water.

Trichloride of iodine is recommended by Pflüger as being

equally efficacious as a bactericide, and much less irritating. He has experimented upon the direction of the currents out of the subconjunctival tissue. Injecting fluorescine here or into Tenon's fascia, he found that it travelled along the cornea, gradually spreading entirely over it. It passed into the uvea, into the suprachoroidal lymph space, and into the vitreous, especially the anterior portion, and even into the lens. The lens retained the change of colour many days after it had disappeared from the other parts of the eye, and showed in a beautiful manner the nutritive zones which Magnus has described. The retina and the optic nerve remained throughout uncoloured.

Nieden, who is a strong advocate for the use of the galvano-cautery in various forms of corneal ulceration, finds a 2 per cent. solution of the potassium salt of fluorescine a valuable aid in the selection of cases suitable for operation, and in forming a good judgment how much tissue requires removal the peculiar green tinging of the parts bringing them into view of the naked eye wherever fresh inflammation may have occurred.

* * * *

Nystagmus is found in early life always associated with dulness of sight, due either to defective transparency of the eyeball (leucoma corneæ and cataract, or aniridia and albinism) or to faulty development of the visual nerve-tract, so that a perfect retinal impression is impossible, and *the natural stimulus to steady fixation of the eyeballs is absent.* In later years, lesions of the cerebellum and multiple sclerosis give rise to similar clonic movements of the eyeball, because they have damaged the oculo-motor centres and tracts, and *disturbed the muscular equilibrium.*

In Miners' nystagmus there would appear to be present *a disturbance of the muscular equilibrium* from overstrain of the eye muscles, which maintain an unusual position for many hours together in the unnatural attitudes which "coal-getters" assume at their work—a form of "functional impotence" analogous to those diseases of which writer's cramp is the type; there is, moreover, only very imperfect illumination of the black groundwork around, and little if any *stimulus to the steady fixation of the eyeballs.*

Snell has for many years past paid much attention to this subject, and he considers that the prime cause lies in the constrained attitude of the body and the oblique inclination of the head and eyes. He has seen about five hundred cases, and has notes of 120; of these latter, 112 regularly worked on their

sides in low seams ("holeing"); 3 often worked as holers, and the other 5 were all engaged in duties necessitating the oblique upward position of the head. He has found that recovery follows relief from duties requiring this constrained position, although the men still work under the usual condition of defective lighting. Dransart also says that 90 per cent. of the cases he has seen were in miners who had worked lying down in galleries inclined 20° to 45°, and not more than a yard high. The nystagmic movements cease while the patient looks downward, and are exaggerated by his looking obliquely upwards. The principal factor in causation he considers the strained upward and oblique position of the eyes, together with the defective lighting.

Tatham Thompson, on the other hand, finds that the South Wales colliers, who work "house coal" in an awkward and constrained position, many holeing, are but slightly affected by nystagmus; while those cutting "steam coal," with, as a rule, plenty of standing-room, are much affected: these latter use the safety lamp, while the "house coal" workers use the open candle. He considers the faulty light of the safety lamp is an important if not the essential factor in causation, and with this opinion many men of experience in the Welsh pits concur. Pitmen have long blamed the Davy lamp for this disorder.

Dransart, who is the authority in France on this subject, found in 179 serious cases examined as to their dependence on the kind of lighting that 92 used the safety lamp and 87 the naked light. He agrees with Snell that faulty position is the main factor (as does Nieden in Germany), but thinks where the seams are high any cases of nystagmus will be slight or latent, and more frequent and grievous where the seams are low.

Dr. Hudson of Redruth once said that he had never known any case of nystagmus in the Cornish mines, excepting in men who had acquired it in the North. In Cornwall they never work more than eight hours at a shift, often less, and with naked lights, which give better illumination. The peculiarly strained abnormal position and bad lighting are certainly both factors in causation, probably aggravated by overwork and bad air. A good safety lamp of modern construction, kept clean, gives as good a light as an average candle. Illumination underground cannot be excellent, but it might be improved. Dr. Makeig Jones says that nystagmus is much more common in winter than in summer, and that it is found in all conditions of underground workers.

F. R. Cross.

Reviews of Books.

An Introduction to the Diseases of Infancy. By J. W. Ballantyne, M.D., F.R.C.P.E. Pp. viii.—242. Edinburgh: Oliver & Boyd. 1891.

The chief part of this book is devoted to the consideration of the anatomy and physiology of the infant, and it is intended as an introduction to a work on the diseases of infancy which the author has in hand. We agree with him that a thorough knowledge of anatomy and physiology is essential as a basis of sound pathological and clinical work, and this is especially the case in the study of infantile diseases, where the differences from the adult state are too often ignored. The author has studied the anatomy of infancy by the method of frozen sections, and useful coloured plates of these sections are given. There is a very thorough account of infantile anatomy, and a great deal of information is here gathered together, of which the author's own researches form no unimportant part. This part of the work is well done, and will be valuable, both as a work of reference on anatomical statistics, and to the student of pædiatrics. Especially useful are the accurate measurements given of all parts of the body. Life is given to the dry bones of anatomical details by the way in which their bearing on clinical work is brought out. Directions for the clinical examination of each region of the body are appended to the anatomical description of the part. We are not so satisfied with these directions; they are not sufficiently complete, and should be either expanded or left out. We think, too, that the author is inclined to exaggerate the difficulties of medical practice amongst children. The section of the book on Physiology is not so good as that on Anatomy; it is rather unequal: the physiology of digestion is however well done. The chapter on artificial feeding does not compare favourably with other standard works on the subject, perhaps because the directions given are not always sufficiently precise.

Where so much is good we do not like to find fault, but the last part of the book, entitled "The Physiology and Hygiene of Infancy," we cannot regard as adding to its value.

It requires to be considerably curtailed, and we should seriously advise the author to leave out all the passages which he considers either fine or humorous writing. Personally, we are not amused by stale jokes from the comic papers, and such sentences as the following simply puzzle us. Are they meant to be humorous, or as a serious contribution to the science of pædiatrics? "To frighten children to sleep by telling them ghost stories or threatening them with a visit from the policemam, is a procedure which may be flattering to the ghosts, but is a cruelty to the child and an insult to the police." Or this, about crying, in a discussion on reflex movements: "There is a quaint conceit, according to which, the infant in his first wailing cry laments his heritage of original sin; but whilst it is true that the baby at an early age alas! begins to show tendencies that do not set for righteousness, it is equally true that the first cry is founded upon a physical and not upon a mental condition."

Atlas of Clinical Medicine. By BYROM BRAMWELL, M.D., F.R.C.P.E., F.R.S.E. Volume I. Part I. Edinburgh: T. and A. CONSTABLE. 1891.

This is the first instalment of an Atlas to be issued in four parts yearly, each part to consist of 32 folio pages. The whole work will include at least three yearly volumes. The illustrations are to be made a feature of the publication. Each volume is to contain 30 plates, consisting of coloured plates, photogravures, and illustrations in black and white, copied from water-colour drawings and photographs which have been collected by the author.

The letterpress will comprise—(1) Detailed descriptions of many of the diseases illustrated by the plates; (2) Whenever possible, a complete clinical history of individual cases figured in the Atlas; and (3) Articles on medicine, clinical and systematic, with woodcut illustrations.

The present issue deals with the subject of myxœdema, of which a full account is given from the date of its first description; the illustrations consist of three life-like coloured plates, by the aid of which the characteristic *facies* of the disease would at once be recognised by one who was seeing a case for the first time. There is an account of Sporadic Cretinism, admirably illustrated by photographs of typical cases; and the rest of the number is devoted to an exhaustive description of Friedreich's Ataxia, with a number of drawings

of the morbid changes in the spinal cord in this disease; photographs of patients, and of the deformity of the foot. Two additional plates are given, one a crayon drawing of Melancholia with fear, and the other a photogravure of a case of Lymphadenoma: these belong to later parts of the work, and are presumably added to give a general idea of the character of the plates. The least that can be said of the illustrations is that they are beautifully executed, and are most artistic and faithful reproductions of the diseases they represent. Dr. Bramwell's name is sufficient guarantee that the clinical descriptions of the cases and systematic accounts of the diseases selected will be well written; and the subjects treated of in this part are fully considered and brought thoroughly up to date. The whole work promises to be most valuable, and one which all who are interested in the progress of medicine will desire to possess. The author has our most cordial wishes for the success of his new undertaking.

International Clinics: a Quarterly of Clinical Lectures by Professors and Lecturers in the leading Medical Colleges of the United States, Great Britain and Canada. Edited by JOHN M. KEATING, M.D., J. P. CROZER GRIFFITH, M.D., J. MITCHELL BRUCE, M.D., F.R.C.P., and DAVID W. FINLAY, M.D., F.R.C.P. Volume First. Pp. viii.—357. Edinburgh: YOUNG J. PENTLAND. 1891.

As the title indicates, the publishers propose to issue quarterly a volume containing clinical lectures by the most eminent teachers in the various schools of the United States, Great Britain, and Canada. With the object of making the periodical a complete post-graduate course of medical instruction, the editors will publish only such lectures as are most instructive and most practical. Although the amount of periodical medical literature is already almost overwhelming, we think that this new publication will be a useful one, and that its special value will lie in its enabling the practitioner remote from libraries and the large centres of medical education to keep abreast with the times by learning what is the most approved practice of the leading teachers in the profession, and to compare the views and the treatment in favour at the different schools. More than this, it may be anticipated that such a periodical will serve as a further bond of

union between the medical men of Great Britain and their brethren in the New World, and result in mutual improvement, by making each more perfectly acquainted with the peculiar merits of the other's practice. To take an instance, the valuable work that has been and is being done by the American Schools of Neurology and Gynæcology is not nearly so widely known in England as it deserves to be.

This first volume contains a most interesting and instructive series of Clinical Studies: where all are good it would be invidious to select any for special mention. Numerous illustrations from photographs are interspersed in the text, and serve to enable the reader—so far as a picture can do—to see for himself the case under discussion. The largest space is of course occupied by the lectures on medicine and surgery, but all the specialties find their due place.

The book is of convenient size, is printed in clear type on good paper, with well-executed illustrations, and forms a handsome volume. We must commend the enterprise of the publishers in initiating a periodical which will prove a valuable means of education to the profession; and if the succeeding volumes maintain the high level of this one—and there is every reason to believe that they will do so—we are sure that their undertaking will be crowned with success.

On Stertor, Apoplexy, and the Management of the Apoplectic State. By ROBERT L. BOWLES, M.D., F.R.C.P. Pp. 125. London: BAILLIÈRE, TINDALL & COX. 1891.

Dr. Bowles's researches on this subject, which extend over a period of thirty years, are already widely known through the medium of the *Transactions* of various Societies, and of the *Journals*. In this book he has collected them together, and added some original observations on the structure and anatomical arrangements of the mammalian pharynx and epiglottis. Many useful directions for the management of apoplexy and the relief of stertor in the apoplectic state are given, and should be familiar to all medical men. The methods which he recommends for obviating stertor are simple, easily carried out, and would seem to be effectual; they are founded on a careful study of the mechanism of its production under different conditions. Everyone will agree with the author as to the importance of keeping the respiratory passages patent in apoplectic states, and that in most

cases the exact diagnosis of the nature and position of the lesion would be greatly facilitated if stertor could be prevented. The further contention that when in apoplexy there is raised blood-pressure, a tense full pulse, and powerful action of the heart, these phenomena are in the large majority of cases caused by interference with the proper aëration of the blood through obstruction in the upper air-passages, we should not be prepared to admit without further evidence. The author's views as to the production of stertor are based on careful clinical observation and patient experimental research, and deserve to be widely known. We welcome this book as putting them in a convenient form.

Notes on the Additions made to the British Pharmacopœia, 1890. By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P. Pp. 22. London: H. K. LEWIS. 1891.

New Official Remedies, British Pharmacopœia, 1890. *Supplement to "Materia Medica and Pharmacy."* By A. W. GERRARD. Pp. 40. London: H. K. LEWIS. 1891.

These little books were rendered necessary by the issue of the *Additions to the British Pharmacopœia*, 1890: they form supplements to the well-known works of their respective authors; and the arrangement of the matter in each follows the method adopted in the larger book. They both seem very well adapted to the needs of students. The second has the advantage of an index.

On Painful Menstruation. The Harveian Lectures, 1890. By FRANCIS HENRY CHAMPNEYS, M.A., M.D. Oxon., F.R.C.P. Pp. viii.—88. London: H. K. LEWIS. 1891.

By the aid of large type of an excellent fount, and of thick paper which it is a pleasure to handle, these lectures form an imposing and handsome volume. The subject chosen by Dr. Champneys is of great practical interest and, as befitted the occasion upon which the lectures were delivered, is dealt with scientifically and with dignity; its literature, so copious that a special receptacle had to be provided for the accommodation of the large tables in which a summary of it is presented, is considered in detail and in

an interesting manner. Dealing largely in theory, the author's statements are often open to criticism, but the arguments of other observers are fairly given and dispassionately examined.

Importance is rightly attached to the need of a careful differential diagnosis in all cases of so-called membranous dysmennorrhœa especially in reference to the products of conception; and, as its treatment is said to be "a most unhappy problem," diligent search must be made for the cause, which the author thinks will usually be found to be of an inflammatory character. Dr. Champneys, firmly convinced that spasmodic dysmennorrhœa is a neurosis, enters a vigorous protest against treatment much too frequently based on a mechanical system of pathology, although, in the absence of the great remedy of pregnancy and parturition, he would, as a last resort, have recourse to dilatation, which, if adopted, he recommends to be carried out at one sitting under anæsthesia, and with full antiseptic precautions.

Dr. Champneys' language is occasionally epigrammatic; and among his best sayings is the one that "in matters of science Englishmen live less on an island than other people;" but when he prints the name of the dedicatee of his book in a Latinised form he gives it an appearance which is decidedly comic.

A full table of contents to the volume is supplied, but no index.

On Varicocele: A Practical Treatise. By WILLIAM H. BENNETT, F.R.C.S. Pp. viii.—105. London: LONGMANS, GREEN & Co. 1891.

This monograph is the outcome of the careful study of about 250 cases of varicocele seen in hospital and private practice, and of a large number of dissections and *post mortem* examinations. The two most important points insisted upon by the author are: (1) That one cause only is concerned in the actual origin of the affection, viz.—congenital abnormality; and (2) That the best mode of operating for the radical cure is the method first described by the author in the *Lancet* (February 9th, 1889), in which he excises two or three inches of the plexus of veins, including with these, in the vast majority of cases, the spermatic artery, and then stitches the divided ends together.

The book is full of sound common sense and good practical suggestions, and it may be looked upon as containing the best and latest views on the subject.

Intubation of the Larynx. By JAMES B. BALL, M.D. Pp. 54. London: H. K. LEWIS. 1891.

This little work forms a conveniently-arranged *resumé* of the literature bearing on the subject of intubation of the larynx. After briefly reviewing the history of the operation and the various devices by which O'Dwyer overcame the many practical difficulties he encountered, the author describes the instruments and the method of using them, together with the difficulties that may occur to the operator and how they may be met. The after-management of the patient, upon which success or failure very much depends, has a short chapter to itself.

We should have felt a greater interest in the work had there been any evidence that it was based on a personal experience of intubation and its difficulties; still, it will prove useful as an efficient guide for those who desire to become acquainted with the subject.

The Medical Digest, or Busy Practitioner's Vade-Mecum. Being a Means of Readily Acquiring Information upon the Principal Contributions to Medical Science during the last Fifty Years. By RICHARD NEALE, M.D. Lond. Third Edition. Pp. xi.—794—cxxxii. London: LEDGER, SMITH & Co. 1891.

The third edition of this important work testifies to the unconquerable industry of Dr. Neale. Although the value of the book is somewhat minimised by the limited number of journals with which it deals, it is nevertheless one that should be in every public library and within reach of every diligent student of the medical sciences. When reviewing the second edition and its 1886 appendix, we pointed out that the work is much more than a bare classified reference to papers, and we should again like to emphasise this; for, owing to Dr. Neale's system, a needless search is not seldom obviated, as the leading thought of the communication is often given.

It would be unreasonable to expect that in a work of this kind there should be no errors of arrangement. Recently we had occasion to look up the references to the operation of uniting the sides of an anal fistula. In Section 889. 5, after the name of Reeves, the mode of printing makes it appear that the three references are to papers by this surgeon. The second reference is wrong, and the third should have Stephen

Smith's name prefixed. But this is a tiny spot on a sun. We owe Dr. Neale an immense debt of gratitude for affording us this real help, and for absolving our nation from the charge of bibliographical indolence which might otherwise be fairly brought against it.

Bibliotheca Medico-Chirurgica. Göttingen: VANDENHOECK & RUPRECHT.

This bibliography, which has been recently added to our Exchange-list, deserves special notice. While not so voluminous as the *Index Medicus*, and in no sense a substitute for it, it is a most valuable work arranged in an admirable manner. Classified under a sufficient number of headings, the names of books are first given, and then, in different type, the titles of papers in the 80 journals which are laid under contribution. The enterprising compilers, who are to be warmly congratulated on their work, might well add to this number.

With much consideration for our linguistic deficiencies, they have provided us with a separate title and explanations in English; and we might take this, for which we thank them, as one more indication that our language is destined to be the universal one. The cheapness of this publication, for which Messrs. Luzac and Co. are the London agents, is a strong point in its favour, and we hope its circulation in this country will be largely increased; for although it is some years old, it does not seem to be as well known as it ought to be. The work is issued quarterly.

Rhyming and Mnemonic Key to Materia Medica. By M.D. Pp. 48. London: L. & J. PARNELL. [n.d.]

If this booklet, to which the author has not had the courage to attach either his name or the date, is not intended as a burlesque, it is about the most stupid production we have ever seen. Its purpose is sufficiently indicated by its title, but the rhyme is of the feeblest and the mnemonics are more puzzling than the actual details of the Pharmacopœia. We almost owe an apology to our readers for quoting any of the drivel which is here offered as an aid to the student's memory. The following is a sample of that which is to be found running through the whole book:

> "And then note you well, Troch. Morph. et Ipecacu.
> Is made with Morph., Ipecac., and Tinct. of Tolu;
> Morph. hydro. 1–36th and 1-12th Ipec. in each loz.,
> Give this for a cough if trouble it cause."

We trust that before long all copies of this work will have disappeared, so that the next generation may not think that the medical education of to-day could be associated with such twaddle. Possibly some members of an overstocked profession might welcome it, as its use would be likely to prevent students passing their examinations.

Lewis's Pocket Medical Vocabulary. Second Edition. Pp. 314. London: H. K. LEWIS. 1891.

We have had only too good reason to mistrust Pocket Vocabularies, which we have usually found almost valueless; but this book is certainly an exception. It is fairly up to date, is well printed, and, within the limits it has set itself, is one that can be recommended.

Medical Symbolism, in connection with Historical Studies in the Arts of Healing and Hygiene. By THOMAS S. SOZINSKEY, M.D., Ph.D. Philadelphia: F. A. DAVIS. 1891.

It is unfortunately to Dr. Sozinskey's memory only that we can return thanks for this book. The erudite author himself has been dead for over two years; and his death followed too soon upon the completion of the work for him to witness its publication. In our struggle to be acquainted with the staining properties of the last discovered microbe, we have had no time of late to devote to the study of the history of Medicine, so that it is a novelty as well as a pleasure to peruse again a treatise of this character. Dr. Sozinskey has brought together by much laborious research a large amount of information bearing upon the history of Medicine and Symbolism. His style is pleasant, his language well chosen, and the subject interesting; so that although the book is learned it is easy reading. So far as we know, this is the first medical work in which the "Aryan" origin of learning and belief is not universally accepted, and in which there is also demonstrated how much of existing knowledge and faith we have inherited from the pre-Semitic dwellers in Mesopotamia. To say that Dr. Sozinskey is not at times a little diffuse would not be strictly true, but we most heartily commend the work, while deploring the premature death of the accomplished author.

Notes on Preparations for the Sick.

Ferri Perbromidum (Fe_2 Br_6).—Burgoyne, Burbidges, Cyriax & Farries, London.

Messrs. Burgoyne & Co. are now supplying this new salt of iron in two convenient forms: **Syrupus Ferri Perbromidi** and **Syrupus Ferri Perbromidi c. Quininâ et Strychninâ.**

Each fluid drachm of the former contains five grains of the perbromide of iron, and the latter has in addition one grain of the quinine hydrobromide and one thirty-second of a grain of strychnine hydrobromide.

The ferric salt (Fe_2 Br_6) is said to act more rapidly and to give more permanent results that the ferrous salt (Fe Br_2), and has been strongly recommended by Dr. Hecquet in cases where a bromide of iron is specially indicated. These convenient preparations are likely to be of frequent utility.

Kutnow's Improved Effervescent Carlsbad Powder.

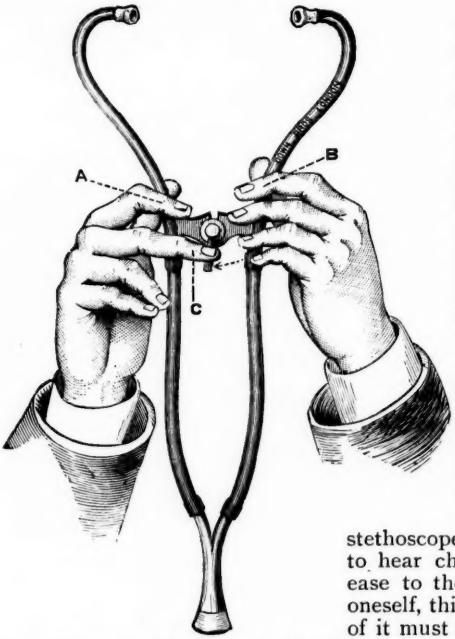
S. Kutnow & Co., London.

Of the great utility of Carlsbad salts to persons leading sedentary lives and inclining to corpulence, there can be no question; the principal difficulty in their habitual use arises from the nauseous character of the dose. This powder contains the active principles of the Sprudel salts in a slightly sweetened and feebly effervescent form. A tablespoonful of the powder in half a tumbler of water makes a decidedly pleasant draught, and taken in early morning is an efficient aperient.

Flitwick Water.—Ingram & Royle, London.

The Flitwick chalybeate spring, near Ampthill, in Bedfordshire, yields a unique chalybeate water, far richer in carbonate of iron than any of the best chalybeates of the Continent, retaining the whole of its constituents in clear solution, and keeping good in bottles for any length of time. The proportion of solid matter per gallon is 255.26 grains, and of this the oxide and carbonate of iron amount to as much as 144 grains. Wherever a chalybeate water is indicated, Flitwick should be at once in demand.

Dr. Herschell's Improved Binaural Stethoscope.—DOWN BROS., London.



We have used this stethoscope for several weeks, and have got to prefer it above all others, inasmuch as the avoidance of too much pressure on the ears is a great comfort, and this can be regulated easily and quickly. It has all the advantages of the Binaural, and the one previous disadvantage (that of too great or too little pressure) is now removed. If the function of a stethoscope is to enable one to hear chest sounds with ease to the patient and to oneself, this particular form of it must take precedence, as one can certainly hear with it better and more easily than with others. It is, however, rather bulky and inconvenient to carry in the pocket.

The improvement in this instrument consists of the adoption of a lever by means of which the joint may be clamped and fixed at any point.

In using the stethoscope the arms should be held between the first finger and thumb of the right and left hands respectively, as shown in the illustration; when comfortably in position the lever is moved in the direction shown by the arrow, which effectively locks the joint—it can afterwards be easily removed from the ears and closed to put in the pocket without again touching the lever.

The instrument is provided with a combination chest-piece, the outer end of which screws off, leaving a smaller size for children.

The Library of the Bristol Medico-Chirurgical Society.

The following is a List of Donations received up to August 31st, 1891.

	£	s.	d.			
W. R. Ackland	20	0	0			
J. W. Arrowsmith (1)				...	1	volume.
Barclay J. Baron, M.B. (2) ...				...	2	volumes.
John Beddoe, M.D. (3) ...				...	61	,,
A. E. Blacker (4)				...	5	,,
British Medical Association (5)				...	706	,,
John Broom, M.D. (6) ...				...	8	,,
J. Michell Clarke, M.B. (7) ...				...	17	,,
G. G. Corbould (8)	5	0	0	and	33	,,
W. Howard Cory (9)				...	3	,,
F. R. Cross (10)	10	0	0	and	26	,,
D. S. Davies, M.B. (11) ...				...	2	,,
Nelson C. Dobson	5	0	0			
T. S. Ellis (12)...				...	1	volume.
John Ewens (13)...				...	4	volumes.
E. Long Fox, M.D. (14) ...	20	0	0	and	23	,,
W. J. Fyffe, M.D. (15) ...	5	0	0	and	6	,,
L. M. Griffiths (16)	5	5	0	and	54	,,
A. J. Harrison, M.B.	5	0	0			
F. P. Lansdown (17)				...	59	,,
Henry Marshall, M.D.	2	2	0			
C. A. Morton	0	10	0			
New York Academy of Medicine (18)				...	6	,,
George Parker, M.D.	2	2	0			
Mrs. J. D. F. Parsons (19) ...				...	27	,,

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W. J. Penny (20)	1	1	0	and 3	volumes.
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C. F. Pickering (22)				... 1	,,
Augustin Prichard	5	0	0		
Arthur B. Prowse, M.D. (23)				... 47	volumes.
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R. B. Ruddock (25)				... 194	volumes.
C. King Rudge (26)				... 1	volume.
E. J. Sheppard	1	1	0		
J. Greig Smith (27)				... 62	volumes.
R. Shingleton Smith, M.D. (28)	5	5	0	and 24	,,
Surgeon-General, U.S. Army(29)				... 6	,,
J. G. Swayne, M.D. (30) ...				... 107	,,
Vandenhoeck & Ruprecht (31)				... 3	,,

Unbound periodicals have been received from Dr. Beddoe, The British Medical Association, Dr. Broom, Mr. Corbould, Mr. Dobson, Mr. Griffiths, Mr. Lansdown, and Mr. Greig Smith.

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LIST OF BOOKS.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

The list of books makes no pretension of bibliographical fulness. It is merely a record of short titles supplied as a matter of convenience.

Abbott, J. ... *Hand Book of Idiotcy* ... ... (5) 1856

Abercrombie, J. *On Diseases of the Stomach* ... ... (5) 3rd Ed. 1837

Abernethy, J.... *The Origin and Treatment of Local Diseases, and on Aneurisms.* (25) 1809. (5) 1815. (19) 5th Ed. 1820. (3) 6th Ed. 1822. (30) 7th Ed. 1824

,, *On Injuries of the Head*— (25) 1810. (5) 1815. (19, 30) 3rd Ed. 1821

Abernethy, J.... *On Diseases resembling Syphilis.* (25) 1810. (19) 3rd Ed. 1814. (5) 1815. (30) 4th Ed. 1822
,, *On Tumours and on Lumbar Abscesses.* (25) 1811. (5) 1815. (19) 2nd Ed. 1816. (30) 3rd Ed. 1822
,, *Anatomical Lectures* ... ... (25) 1814
,, *Lectures on Surgery, &c.* ... ... (25) 2nd Ed. 1831
Acland, H. W. *The Harveian Oration,* 1865 ... ... (5) 1865
Acton, W. ... *The Reproductive Organs* ... ... (25) 3rd Ed. 1862
Adams, J. ... *On the Prostate Gland* ... ... (25) 1851
Addison, T. ... *Works* (Ed. by Dr. Wilks and Dr. Daldy) (5) 1868
Agnew, D. H.... *Surgery.* 3 vols. ... ... (10) 1878-83
Aldridge, J. ... *On the Urine* ... ... (25) 1846
Allan, F. J. ... *Aids to Sanitary Science...* 1890
Allen, H. ... *A New Method of Recording the Motions of the Soft Palate* ... ... (10) 1884
Amesbury, J.... *Observations on Fractures* 1828
,, *Fractures.* 2 vols. ... ... (30) 1831
* **Andral, G.** ... *Clinique médicale.* (3) Tomes I.—IV. 4th Ed. 1839-40; (3) Tome V. 2nd Ed. 1833
,, *Précis d'Anatomie pathologique.* 3 vols. ... ... (30) 1829
Aneurism, Observations on. (Tr. and Ed. by J. E. Erichsen) ... (5) 1844
Aretæus (The Cappadocian). *Extant Works*—Greek and English. (Ed. and Tr. by F. Adams) ... ... (5) 1856
* **Arnott, N.** ... *Elements of Physics* ... ... (25) Vol. I. 5th Ed. 1833
Ashhurst, J.[Ed.] *The International Encyclopædia of Surgery.* 6 vols. (10) 1882-86
Ashton, T. J. ... *Prolapsus, Fistula in Ano and Hæmorrhoids* ... (25) 1862
Ashwell, S. ... *Diseases of Women* ... ... (30) 1844

Baas, J. H. ... *History of Medicine* 1889
Baillie, M. ... *Morbid Anatomy.* (Ed. by J. Wardrop.) (25) 6th Ed. 1830
Bainbrigge, —. *Droitwich Salt Baths* ... ... (25) 1873
Ball, J. B. ... *Diseases of the Nose* ... ... (2) 1890
,, *Intubation of the Larynx* 1891
Ballantyne, J. W. *Introduction to the Diseases of Infancy...* 1891
Ballard, E. ... *Pain after Food* ... ... (25) 1854
Barbour, D. B. Hart and A. H. F. *Manual of Gynecology.* (5) 3rd Ed. 1886
Barry, F. W.... *Report of an Epidemic of Small Pox at Sheffield, 1887-88* (16) 1889
Barthez et F. Rilliet, A. C. E. *Maladies des Enfants.* 3 vols. (30) 1843
Bartholinus, T. *Anatome* ... ... 5th Ed. 1686
Basham, W. R. *Dropsy connected with Disease of the Kidneys.* (25) 1858
Bateman, T. ... *On Cutaneous Diseases* ... ... (19) 6th Ed. 1824
Beale, L.... ... *The Examination of Urine* ... ... (25) 1856
Beasley, H. ... *Book of Prescriptions* ... ...(23) 2nd Ed. 1859

Beck, T. R. ... *Medical Jurisprudence.* (5) 2nd Ed. 1825. (30) 6th Ed. (conjointly with J. B. Beck) 1838
Beck, T. R. Beck and J. B. *Medical Jurisprudence.* (30) 6th Ed. 1838
Beddoe, J. ... *The Races of Britain* ... ... (1) 1885
Bell, B. ... ... *A System of Surgery.* 6 vols.
(5) Vol. I. 1783; (5) Vol. II. 1784;
(5) Vol. III. 1785, (5) 3rd Ed. 1788;
(5) Vol. IV. 1786, (5) 2nd Ed. 1787;
(5) Vol. V. 3rd Ed. 1789; (5) Vol. VI. 3rd Ed. 1789
Bell, C. ... ... *The Nervous System of the Human Body* ... ... (5) 1830
Bell, J. ... ... *Operations of Surgery* ... ... (5) 3rd Ed. 1874
,, *Notes on Surgery for Nurses* ... ... 3rd Ed. 1891
* **Bell, J. and C.** *Anatomy and Physiology of the Human Body.* (5) Vols. II., III. 5th Ed. 1823
Bellinus, L. ... *Opuscula & Exercitationes.* Two vols. in one. (3) 1714–26
Bennet, J. H. ... *Inflammation of the Cervix Uteri* ... ... (25) 1845
Bennett, Sir R. *The Diseases of the Bible* ... ... (16) 1887
Bennett, W. H. *Varicocele* 1891
Bernutz and E. Goupil, G. *Diseases of Women.* (Tr. by A. Meadows) 2 vols. ... ... (5) 1866–67
Berry, G. A. ... *Diseases of the Eye* ... ... (16) 1889
,, ... *Ophthalmoscopic Diagnosis* 1891
Bigg, R. H. ... *Spinal Curvature* ... ... (23, 25, 30) 1882
,, *Artificial Limbs* ... ... (3, 23, 25) 1885
Billing, A. ... *Principles of Medicine* ... ... (25) 3rd Ed. 1838
Billings, J. S. ... *National Medical Dictionary.* 2 vols. 1890
Billroth, T ... *Surgery.* 2 vols. ... .., ... (5, 28) 1877–78
Bird and C. Brooke, G. *Natural Philosophy* ... ... (5) 5th Ed. 1860
Black, D. C. ... *The Germ-Theory of Disease* ... ... [1891]
Boerhaave, H. *Treatise on the Powers of Medicines* ... ... (8) 1740
Bouchut, E. ... *Diseases of Children.* (Tr. by P. H. Bird) ... (30) 1855
Bouillaud, J. ... *Clinique médicale.* 2 vols. ... ... (3) 1837
Bourneville and Bricon, Drs. *Hypodermic Medication.* 2nd Ed. (Tr. by A. S. Currie) ... ... (16) 1887
Bowles, R. L. ... *Stertor and Apoplexy* 1891
Bowman, J. E. *Medical Chemistry* ... ... (23) 3rd Ed. 1855
Boyer, Baron ... *Traité des Maladies chirurgicales.* 12 vols. ... 1822–28
"B. P. C." ... *Unofficial Formulary, with Addendum* 1889
Brachet, L. ... *Aix-les-Bains* ... ... (5) 1884
Bramwell, B. ... *Studies in Clinical Medicine* ... ... Vol. I. 1890
,, *Atlas of Clinical Medicine* ... ... Vol. I. Part 1 1891
Braun, J. ... *Curative Effects of Baths and Waters* ... ... (5) 1875
Bricon, Drs. Bourneville and *Hypodermic Medication.* 2nd Ed. (Tr. by A. S. Currie) 1887

Bright, R. ... *Clinical Memoirs on Abdominal Tumours.* (Ed. by G. H. Barlow) ... ... (5) 1860
Briot, P. F. ... *Histoire de l'Etat et des Progrès de la Chirurgie militaire en France* ... ... (5) 1817
Bristowe, J. S. *Theory and Practice of Medicine* ... (5) 5th Ed. 1884
Brodie, B. C. ... *On Diseases of the Joints* ... ... (5) 1818
,, *On the Urinary Organs.* (5) 3rd Ed. 1842. (3) 4th Ed. 1849
Brooke, G. Bird and C. *Natural Philosophy* ... ... (5) 5th Ed. 1860
Brown, I. B. ... *On Diseases of Women* ... ... (5) 1854
Browne, L. ... *Koch's Remedy in Throat Consumption..* 1891
Brown-Séquard, E. *Researches on Epilepsy* ... ... (23) 1857
Bruce, J. M. ... *Materia Medica and Therapeutics.* (16) 3rd Ed. 1886 1891
Brunton, T. L. *Pharmacology, Therapeutics and Materia Medica.* 3rd Ed. 1887
Bryant, T. ... *Harveian Lectures* ... ... (23) 1885
Buck, A. H. [Ed.] *Reference Handbook of the Medical Sciences.* 8 vols. 1888–90
Bull, T. ... ... *Hints to Mothers* ... ... (25) 2nd Ed. 1839
Burnet, R. W. *Foods and Dietaries* 1890
Burns, J. ... *Principles of Midwifery.* (19) 6th Ed. 1824. (25) 9th Ed. 1837
Bushe on Diseases of the Rectum, Plates to ... ... (9) 1837
Butlin, H. T.... *Diseases of the Tongue* ... ... (5) 1885

Caillard, E. M. *Invisible Powers of Nature* ... ... (5) 1888
Caird and C. W. Cathcart, F. M. *Students' Atlas of Bones and Ligaments* 1885
Cameron, Sir C. A. *History of the Royal College of Surgeons in Ireland* (5) 1886
Campbell, H. ... *Differences in the Nervous Organisation of Man and Woman* 1891
Carlsen, J. ... *Statistiske Undersogelser angaaende Aandssvage i Danmark.* 1888–1889. (With Abstract in English) 1891
Carter, A. H. ... *Elements of Medicine.* (16) 5th Ed. 1888. 6th Ed. 1891
Carter, R. B. ... *Hysteria* ... ... (25, 30) 1853
Casper, J. L. ... *Forensic Medicine.* (Tr. by G. W. Balfour.) (5) Vols. I.—III. 1861–64
Catalogue of Library of Royal Medical and Chirurgical Society. (5) *Index*, 1860: 3 vols. (5) 1879
Catalogue (Index) of Library of Surgeon-General's Office, U.S. Army. Vols. I.—V. 1880–84. (29) Vols. VI.—XI. 1885–90
Catalogue of Obstetric Instruments, &c. ... ... (8) 1867
Cathcart and F. M. Caird, C. W. *Students' Atlas of Bones and Ligaments* 1885
Chambers, T. K. *Digestion and its Derangements* ... ... (25) 1856
,, *The Renewal of Life* .. .. (25) 2nd Ed. 1863
Champneys, F. H. *Painful Menstruation* 1891
* **Charcot, J. M.**... *Œuvres complètes* ... ... (5) Tome V. 1888
Chaumont, F. S. B. F. de *Lectures on State Medicine* ... ... (15) 1875

Chelius, J. M.... *System of Surgery.* (Tr. by J. F. South.) 2 vols. (23) 1847
Cheyne, W. W. *Suppuration and Septic Diseases* 1889
Child's First Hour, A ... ... (25) 1851
Chisholm, J. E. Pollock and J. *Medical Handbook of Life*
,, *Assurance* ... . 3rd Ed. 1889
Churchill, F. ... *Diseases of Children* ... ... (25) 1850
,, *Diseases of Women*... ... ... 4th Ed. (30) 1857
Clarke and C. M. Tidy, P. *Medical Laws for Medical Men* 1890
* *Clinical Lectures, German.* Second Series ... ... (5) 1877
Cloquet, H. ... *Anatomy.* (Tr. by R. Knox) . . .. (5) 1828
Cloquet, J. ... *On Hernia.* (Tr. by A. M. McWhinnie)... ... (25) 1835
Coates, W. M.... *On Chloroform* ... ... (25) 1858
Coats, J. ... ... *Manual of Pathology* ... ... 2nd Ed. 1889
Colles, A. ... *Works.* (Ed. by R. McDonnell) ... ... (5) 1881
Combe, A. ... *The Management of Infancy* ... ... (5) 9th Ed. 1860
Conolly, J. ... *On the Indications of Insanity* ... ... (19) 1830
,, *The Construction and Government of Lunatic Asylums.* (19) 1847
Cooke, T.... ... *Tablets of Anatomy* ... ... (10) 4th Ed. 1885
Cooper, Sir A.... *Dislocations and Fractures*—
(22) 4th Ed. 1824. (5) 7th Ed. 1831
,, *Lectures on Surgery, &c.* (25) 3rd Ed. 1832. (5) 6th Ed. 1839
Cooper, S. ... *Dictionary of Practical Surgery* ... (5, 19) 4th Ed. 1822
,, *First Lines of Surgery*—
(5, 25, 30) 6th Ed. 1836. (5) 7th Ed. 1840
Coote, H. ... *On Syphilis* ... ... (25) 1857
,, *On Joint-Diseases* ... ... (3) 1867
Copeman, E. ... *Records of Obstetric Practice* ... ... (30) 1856
Copland, J. ... *Medical Dictionary.* 4 vols. ... ... (13, 23) 1844–58
Coppock, J. Craven and T. *The Law Relating to Medical Practitioners* 1890
Cormack, C. E. *The Mineral Waters of Vichy* ... ... (5) 1887
Cotton, R. P. ... *Phthisis and the Stethoscope* ... ... (25) 1851
Coupland, S. ... *Notes on the Examination of the Sputum, Vomit, Fæces, and Urine* 1891
Cox, F. A. ... *The Care of the Skin* ... . (16) 1890
Craven and T. Coppock, J. *The Law Relating to Medical Practitioners.* 1890
Critchett, A. ... *Eclecticism in Operations for Cataract* ... ... (23) 1883
Crocker, H. R.... *Diseases of the Skin* ... ... (16) 1888
Crookshank, E. M. *Manual of Bacteriology* ... ... (27) 3rd Ed. 1890
Cullen, W. ... *Materia Medica.* 2 vols. ... ... (30) 1789
,, *Practice of Physic.* (Ed. by J. C. Gregory.) 2 vols. (19) 1829
Cullimore, D. H. *Consumption as a Contagious Disease* ... ... (15) [1880]
Cummin, W. ... *The Proofs of Infanticide* ... . (25) 1836
Curgenven, J. B. *Eucalyptus Globulus in Scarlet Fever* 1891
Curling, T. B.... *Diseases of the Testis.* (5) 1843. (8) 2nd Ed. 1856

Czermak, J. N. *Practical Uses of the Laryngoscope.* (Translated by G. D. Gibb) ... ... (3, 5) 1861

Daventer, H. à *The Art of Midwifery Improv'd* ... (5) 3rd Ed. 1728
Davis, D. D. ... *Obstetric Medicine.* 2 vols. ... ... (5) 1836
Davis, J. H. ... *On Difficult Parturition* ... ... (5) 1858
Dawson, R. ... *Spermatorrhœa.* (3) 5th Ed. 1851. (30) 6th Ed. 1852
Denmark: its Medical Organization, Hygiene and Demography 1891
D'Estrées, D. ... *Medical Guide to Contrexéville* ... . (5) 1883
Dewees, W. P. *Midwifery* ... ... (19) 1825
Dictionary, English and Italian (J. E. Wessely) ... ... [N.D.]
Dictionary, English and Spanish (J. E. Wessely and A. Gironés.) 5th Ed. 1888
Dictionary, French: Abridged (L. Contanseau) ... ... [N.D.]
Dictionary, German-English and English-German (F. W. Longman.) 6th Ed. 1890
Dictionnaire de Médecine. 21 vols. 1821-28
Diday, P. ... *Infantile Syphilis.* (Tr. by G. Whitley) ... ... (16) 1859
Diphtheria, Memoirs on. (Tr. by R. H. Semple) ... ... (5) 1859
Dobell, H. ... *Loss of Weight, Blood-spitting, and Lung Disease.* (5) 1878
Donders, F. C. ... *Accommodation and Refraction of the Eye.* (Tr. by W. D. Moore) ... ... (5) 1864
Doran, A. H. G. *Tumours of the Ovary, &c.* ... ... (5) 1884
Downing, C. T. *Neuralgia* ... ... (30) 1851
Dowse, T. S. ... *Massage and Electricity* ... ... (16) [N.D.]
Druitt, R. ... *The Surgeon's Vade-Mecum* ... ... (5) 11th Ed. 1878
Dukes, C. ... *The Preservation of Health* ... ... (5) [N.D.]
Duncan, J. M. ... *Researches in Obstetrics* 1868
,, *On Perimetritis and Parametritis* 1869
,, *Mortality of Childbed and Maternity Hospitals* 1870
,, *Fecundity, Fertility, and Sterility* ... ... 2nd Ed. 1871
,, *Mechanism of Natural and Morbid Parturition* ... (5) 1875
,, *Clinical Lectures on the Diseases of Women* (5) 3rd Ed. 1886
Dupuytren, Baron *Diseases and Injuries of Bones.* (Tr. and Ed. by F. le Gros Clark) ... ... (5) 1847
,, *Lesions of Vascular System.* (Tr. and Ed. by F. le Gros Clark) ... ... (5) 1854
Dusch, T. v. ... *Thrombosis of the Cerebral Sinuses.* (Tr. by G. Whitley) ... ... (3, 5) 1861

Edinburgh Practice. (5) Vols. I., II. Medicine; (5) Vols. III., IV. Surgery; (5) Vol. V. Midwifery 1803
Edinger, L. ... *Structure of the Central Nervous System.* 2nd Ed. (Tr. by W. H. Vittum) 1890
Ellis, G. V. ... *Dissection of the Human Body.* 2 vols. Plates and Letterpress ... ... (7) 1867

Ellis, T. S. ... *The Human Foot* ... ... (12) 1889
Emmet, T. A.... *The Principles and Practice of Gynæcology.* (30) 2nd Ed. 1880
Erichsen, J. E. *Science and Art of Surgery.* 2 vols. (5) 7th Ed. 1877
Esmarch, F. ... *The Uses of Cold in Surgical Practice.* (Tr. by E. Montgomery) ... ... (3, 5) 1861
Evanson and H. Maunsell, R. T. *On Diseases of Children.* (5) 1836; (5) 3rd Ed. 1840
Extra Physics... ... ... (5) 1878
Eyre, Sir J. ... *On some Exhausting Diseases* ... (25) 2nd Ed. 1851

Fabricius, G. (Hildanus) *Opera Observationum et Curationum Medico-Chirurgicorum* ... ... (8) 1646
Faithhorn, J. .. *On Liver Complaints* ... ... (3) 5th Ed. 1823
Falconer, R. W. *The Baths of Bath* ... ... (25) 3rd Ed. 1860
Felkin, R. W.... *Hypnotism* 1890
Fenwick, E. H. *Electric Illumination of the Bladder and Urethra.* (5) 2nd Ed. 1889
Fenwick, S. ... *Medical Diagnosis* ... ... (5) 4th Ed. 1876
Ferguson, F. W. N. Haultain and J. H. *Handbook of Obstetric Nursing* ... ... (16) 1889
Fergusson, W. *Practical Surgery* ... ... (23) 2nd Ed. 1846
Ferrier, D. ... *Cerebral Localisation* 1890
Feuchtersleben, Baron *Medical Psychology.* (Tr. by H. E. Lloyd and Ed. by B. G. Babington) ... ... (5) 1847
Finlayson, J. ... *The Life and Works of Maister Peter Lowe* ... (5) 1889
Forbes, J. ... *A Manual of Medical Bibliography* ... ... (25) 1835
Forsyth, J. S.... *Medical Dieteticon* ... . (3) 1824
Foster, B. ... *Clinical Medicine* ... ... (15) 1874
* **Foster, M.** ... *Text-Book of Physiology.* (5) Parts I., II. 5th Ed. 1888-89
Fothergill, J. M. *The Town Dweller* ... ... (16) 1889
Fowler, J. K. [Ed.] *Dictionary of Practical Medicine* 1890
Fox, F. ... ... *Strathpeffer Spa* ... ... (5) 1889
Fox, T. ... ... *Skin Diseases* . ... (25) 1864
Fox, W. ... ... *Diagnosis and Treatment of Dyspepsia*.. ... ... (3) 1867
Frerichs, F. T. *Clinical Treatise on Diseases of the Liver.* (Tr. by C. Murchison.) 2 vols. ... ... (5) 1860-61
Fuller, A. ... *South Africa as a Health Resort* ... ... (5) 1886
* **Fyfe, A.** ... ... *A Compendium of Anatomy.* (5) Vols. II., III. 5th Ed. 1812

Gant, F. J. .. *The Irritable Bladder* ... ... (25) 2nd Ed. 1867
Garrett, J. H.... *Action of Water on Lead* 1891
Garrod, A. B.... *Materia Medica and Therapeutics* ... ...(25) 3rd Ed. 1868
Gerrard, A. W. *New Official Remedies B.P.* 1890 1891
Gibert, C. M. ... *Diseases of the Skin.* 2nd Ed. (Tr. by E. Sheppard.) (30) 1845

Glasgow, Medico-Chirurgical Society of. *Discussion on Anæsthetics* ... 1891
Gooch, R. ... *On Diseases of Women and Children.* (Prefatory Essay by R. Ferguson.) ... ... (5) 1859
* **Good, J. M.** ... *Study of Medicine.* (By S. Cooper.) (19) Vols. I.—IV. 3rd Ed. 1829
Gottstein, J. ... *Diseases of the Larynx.* (Tr. and added to by P. M'Bride) ... ... [N.D.]
Gould, G. M. ... *Medical Dictionary* 1890
Goupil, G. Bernutz and E. *Diseases of Women.* (Tr. by A. Meadows.) 2 vols. ... ... (5) 1866-67
Gowers, W. R. *Medical Ophthalmoscopy* ... . 3rd Ed. 1890
Graefe, A. v. ... *On Iridectomy.* (Tr. by T. Windsor) ... ... (5) 1859
Gray, H. ... ... *Anatomy* ... ... (5) 1858
Green, J. ... ... *Diseases of the Skin* ... ...(25) 2nd Ed. 1837
Green, T. H. ... *Pathology and Morbid Anatomy* ... ... (5) 2nd Ed. 1873
* **Gregory, G.** ... *Practice of Physic* ... ... (5) Vol. II. 1823
Gregory, J. ... *Conspectus Medicinæ Theoreticæ.* (19) Editio Nona 1832
Griesinger, W. *On Mental Diseases.* (Tr. by C. L. Robertson and J. Rutherford) ... ... (5) 1867
Griffiths, W. H. *Materia Medica and Pharmacy* ... ... (5) 1879
Groenevelt, J. ... *Dissertatio Lithologica* ... ... 2nd Ed. 1687
Grove, Sir W. R. *The Correlation of Physical Forces* ... (8) 6th Ed. 1874
Guthrie, G. J. ... *Wounds and Injuries of the Chest* ... ... (30) 1848
Guttmann, P. ... *Handbook of Physical Diagnosis.* (Tr. by A. Napier.) (5) 1879
Guy, W. A. ... *Public Health* ... ... (10) 1870
,, *The Harveian Oration, 1875* ... ... (3) 1875

Habershon, S. O. *The Effects of Mercury* ... ... (25) 1860
,, *The Harveian Oration.* June 27, 1883 ... ... (3) [N.D.]
Hall, M. ... ... *The Principles of Diagnosis* ... ... (25) 2nd Ed. 1834
* **Hallerus, A.** ... *Disputationes ad Morborum Historiam et Curationem facientes.* ... ... (8) Vols. I.–VI. 1757–58
,, *Disputationes Chirurgicæ Selectæ.* 5 vols. 1755–56
Hamilton, F. H. *A Treatise on Fractures and Dislocations.* (5) 5th Ed. 1875
Hamilton, J. ... *On Purgative Medicines* ... ... (25) 2nd Ed. 1806
Hare, H. A. ... *Fever* 1891
Harley, G. ... *Diabetes* ... ... (25) 1866
Harris and D. Power, V. D. *Physiological Laboratory.* (28) 4th Ed. 1888
Harrison, J. ... *Venereal Diseases* ... ... (25) 1860
Harrison, R. ... *Anatomy of the Arteries.* 2 vols. (19) 3rd Ed. 1833
Hart, D. B. ... *Female Pelvic Anatomy* ... ... [1884]
,, *Topographical and Sectional Anatomy of the Female Pelvis* 1885
Hart and A. H. F. Barbour, D. B. *Manual of Gynecology.* (5) 3rd Ed. 1886
Harvey, W. ... *Works.* (Tr. by R. Willis.) ... ... (5, 23) 1847

Harvey, W. ... *On Deafness* ... ... (25) 2nd Ed. 1856
,, *On Rheumatism, &c., in relation to Deafness* ... (25) [1857]
Hassall, A. H. *On Urine* ... ... (25) 1859
Hasse, C. E. ... *Pathological Anatomy.* (Tr. and Ed. by W. E. Swaine) ... ... (5) 1846
Haultain and J. H. Ferguson, F. W. N. *Handbook of Obstetric Nursing* ... ... (16) 1889
Hatty, J. B. ... *Anfangsgründe der Physik* ... ... (5) 1804
Hatty, R. J. ... *Handbuch der Physik* ... ... (5) 1805
Heath, C. ... *Minor Surgery and Bandaging* ... ... (25) 4th Ed. 1870
,, [Ed.] *Dictionary of Practical Surgery.* 2 vols. 3rd Ed. 1889
Hebra, F. ... *Diseases of the Skin.* 5 vols. (5) Vol. I. (Tr. and Ed. by C. H. Fagge) 1866; (5) Vol. II. (Tr. and Ed. by C. H. Fagge and P. H. Pye-Smith) 1868; (5) Vols. III.–V. (Tr. and Ed. by W. Tay), 1874, 1875, 1880
Hecker, J. F. C. *Epidemics of the Middle Ages.* (Tr. by B. G. Babington) ... . (5) 1844
Herschell, G.... *Health Troubles of City Life* ... ... (5) 2nd Ed. 1890
Hewer, Mrs. L. *Our Baby*... 1891
Hewson, W. ... *Works.* (Ed. by G. Gulliver) ... ... (5) 1846
Hill, B. ... ... *The Essentials of Bandaging* ... ... (5) 6th Ed. 1887
Hilles, M. W.... *The Anatomist* ... ... (23) 1860
Hippocrates (Cos.) *Genuine Works.* 2 vols. (Tr. and Ed. by F. Adams) ... ... (5) 1849
Hirst, B. C. [Ed.] *System of Gynecology and Obstetrics.* Obstetrics 4 vols. 1889
Hoblyn, R. D.... *Dictionary of Medical Terms*... ... ... 11th Ed. 1887
Hoffmann, F.... *Opera Omnia.* 6 vols. 1754–61
Holland, H. ... *Chapters on Mental Physiology* ... ... (25) 1852
Holmes and J. W. Hulke, T. [Eds.] *A System of Surgery.* 3 vols. 3rd Ed. 1883
Holt, B. ... ... *Stricture* ... ... (25) 2nd Ed. 1863
* **Home, Sir E.** ... *Lectures on Comparative Anatomy.* (5) Vols. II., III., V., VI. 1814–28
,, *On Tumours* ... ... (19) 1830
Hood, W. P. ... *On Bone-setting* ... ... (25) 1871
Hooker, W. ... *Physician and Patient.* (Ed. by E. Bentley.) (25) 1850
Hooper, R. ... *Medical Dictionary*... ... ... (5) 5th Ed. 1825
Hulke, T. Holmes and J. W. [Eds.] *A System of Surgery.* 3 vols. 3rd Ed. 1883
Humphry, G. M. *The Human Skeleton* ... ... (10) 1858
Hunt, T.... ... *On the Skin* ... ... (25) 8th Ed. 1865
Hunter, J. ... *A Treatise on the Venereal Disease* ... (5) 2nd Ed. 1788
,, *Essays and Observations.* (Ed. by R. Owen.) 2 vols. 1861
Hunter, W. ... *Anatomia Uteri Humani Gravidi*—Latin and English. (7) 1774
Hussey, E. L.... *Miscellanea Medico-Chirurgica.* (23) 1882; (5) Part II. 1887
,, *In Accidents—and at Other Times* ... (5) 3rd Ed. 1889
Hutchinson, J. *On the Spirometer* ... ... (25) 1852

Hutchinson, J. *The Pedigree of Disease* ... ... (15) 1884
,, *Syphilis* ... ... (5) 1887
Hutchinson, P.S. *Diseases of the Nose and Throat* 1891

Influenza, Annals of (Ed. by T. Thompson) ... ... (5) 1852

Jacobi, A. ... *Intestinal Diseases of Infancy and Childhood* ... (16) 1887
Jaksch, R. v.... *Clinical Diagnosis.* 2nd Ed. (Tr. by J. Cagney.) (16) 1890
James, P. ... *Guide to B.P.* ... ... (16) 3rd Ed. 1889
,, *The Therapeutics of Kronenquelle Water* ... ... (5) 1889
Jamieson, W. A. *Diseases of the Skin* ... ... (16) 1888
Jenner, E. ... *The Causes and Effects of the Variolæ Vaccinæ*— (5) 3rd Ed. 1801
Johnson, G. ... *The Harveian Oration,* 1882 ... ... (3) 1882
,, *A Defence of Harvey* ... ... (3) 1884
,, *On Asphyxia* ... ... (5) 1889
Johnson, J. ... *The Influence of Tropical Climates on European Constitutions.* (3) 3rd Ed. 1821. (30) 6th Ed. (conjointly with J. R. Martin) 1841
Jones, H. B. ... *The Chemistry of the Urine* ... ... (5) 1845
Jones, H. M. ... *Noises in the Head and Ears*... 1891
Jones, T. W. ... *On the Sense of Vision* ... ... (25) 1851

Keating, J. M. [Ed.] *Cyclopædia of the Diseases of Children.* 8 vols. 1889–91
Keetley, C. B.... *Index of Surgery* ... ... (16) 4th Ed. 1887
Keith, S.... ... *On Galvanism* ... ... [N.D.]
Kennedy, E. ... *On Pregnancy and Auscultation* ... ... (25) 1833
Kerckringius, T. *Spicilegium Anatomicum* ... ... (3) 1670
Kirkes, W. S.... *Handbook of Physiology* ... ... (23) 7th Ed. 1869
* **Klebs, E.** ... *Die Allgemeine Pathologie* ... (5) Zweiter Theil 1889
* **Klein, E.**... ... *Anatomy of the Lymphatic System* ... ... (5) I. 1873
,, *Elements of Histology* ... ... (5) [4th Ed.] 1889
Kölliker, A. ... *Manual of Human Histology.* (Tr. and Ed. by G. Busk and T. Huxley.) 2 vols. 1853–54
Kramer, W. ... *On Diseases of the Ear.* (Tr. by H. Power) (5) 1863
* **Küchenmeister, F.** *Manual of Parasites.* 2nd Ed. (5) Vol. I. (Tr. by E. Lankester) 1857
Kussmaul and A. Tenner, A. *On Epileptiform Convulsions from Hæmorrhage.* (Tr. by E. Bronner) ... ... (5) 1859

Laennec, R. T. H. *Traité de l'Auscultation médiate.* 2 vols. (3) 2nd Ed. 1826
Lancereaux, E. *Treatise on Syphilis.* (Tr. by G. Whitley.) 2 vols. (5) 1868–69
Landolt, E. ... *The Refraction and Accommodation of the Eye.* (Tr. by C. M. Culver) ... ... (21) 1886
Lane, H.... ... *Differentiation in Rheumatic Diseases (so called.)* (28) 1890
Langerhans, P. *Handbuch für Madeira* ... ... (5) 1885

Latham, P. M. *Clinical Medicine* ... ... (25) 1836
" *Diseases of the Heart.* (23) Vol. I. 2nd Ed. 1846; (23) Vol. II. 1846
" *Works.* (Ed. by R. Martin.) 2 vols. ... (5) 1876–78
Latham, P. W. *On the Formation of Uric Acid in Animals* ... (5) 1884
Law, J. ... ... *Captain Lobe* ... ... (5) 1889
Lawrence, W. .. *Lectures on Man* ... ... (25) 1822. (25) 6th Ed. 1834
" *Lectures on Surgery*... ... ... (25) 1829-30
Lee, E. ... ... *Invalid's Companion to the Continent.* (5) 2nd Ed. 1861
Lee, R. ... ... *On the Diseases of Women* ... ... (19) 1833
" *Hysteria* ... ... (30) 1871
Lee, T. S. ... *On Tumours of the Uterus* ... ... (25) 1847
Lewers, A. H. N. *Diseases of Women* ... ... (5) 1888. 3rd Ed. 1891
Lewis, T. R. ... *Physiological and Pathological Researches* ... ... (5) 1888
Library of the New York Academy of Medicine, Periodicals, &c., in the— Part I., United States and Great Britain ... (18) 1889
Library of the Royal College of Surgeons of England, List of Transactions, &c., in the 1890
Life Assurance Companies ... ... (3) 1872
Lindley, J. ... *Introduction to the Natural System of Botany* ... (5) 1830
Liston, R. ... *Elements of Surgery* ... ... (25) [N.D.]
" *Operative Surgery.* (26) 2nd Ed. 1838. (5) 3rd Ed. 1840
London, A Handbook to... 1891
Longney, E. ... *Medical Lexicon* ... ... (16) 1888
Louis, P. C. A. *Recherches sur la Phthisie* ... ... (3) 1825
" *Researches on Phthisis.* 2nd Ed. (Tr. by W. H. Walshe) (5) 1844
Lower, R. ... *Tractatus de Corde* ... ... (5) 1669
Lumley, W. G. *The New Lunacy Acts* ... ... (19) 1845

M.D. ... ... *Rhyming and Mnemonic Key to Materia Medica*... ... [N.D.]
Macalister, A. .. *A Text-Book of Human Anatomy* 1889
Mackenzie, G. H. *The Sputum* ... ...[1886]
Mackenzie, M... *Hay Fever* ... ... (5) 3rd Ed. 1885
Mackness, J. ... *Dysphonia Clericorum* ... ... (25) 1848
Maclagan, T. J. *Fever* ... ... (5) 1888
Mahony, O'B.... *Cholera* ... ... (25) 1853
Macnamara, C. M. Tidy and R. *The Maybrick Trial* ... ... (7) 1890
Malgaigne, J. F. *Operative Surgery.* (Tr. by F. Brittan.) (10, 30) 1846
Mann, M. D. (Ed.) *System of Gynecology and Obstetrics.* Gynecology, 4 vols. 1889
Manuel pratique de la Garde-Malade, &c. (5) Tome I. 4th Ed. 1889; (5) Tome II. 1889; (5) Tome III. 4th Ed. 1889; (5) Tome IV. 4th Ed. 1889; (5) Tome V. 1888
Marshall, A. M. *The Frog*... ... ... (5) 3rd Ed. 1888
Marston, J. A. *Typhoid Fever and Tropical Life* ... ... (28) 1890

Martin, J. Johnson and J. R. *Tropical Climates* ... ... (30) 6th Ed. 1841
Martindale, W. *The Extra Pharmacopœia* ... ... (16) 6th Ed. 1890
Martinet, L. ... *Pathology.* (Tr. by J. Quain) ... ... (19) 2nd Ed. 1827
,, *Manuel de Clinique.* 2 vols. ... ... (5) 1835
Massey, G. B.... *Electricity in Diseases of Women* ... ... 2nd Ed. 1890
Maxwell, T. ... *Terminologia Medica Polyglotta* 1890
Mayne, R. G.... *Medical Vocabulary.* 6th Ed. (Ed. by W. W. Wagstaffe.) 1889
M'Bride, P. ... *A Guide to the Study of Ear Disease* ... ...[1884]
McVail, J. C. ... *Vaccination Vindicated* ... ... (16) 1887
Meadows, B. ... *Eruptions* ... ... (16) 5th Ed. 1870
,, *The Errors of Homœopathy* ... ... (23) 3rd Ed. 1876
Millar, J. ... *Hints on Insanity* ... ... (25) 1861
Millard, H. B. *Bright's Disease* ... ... (15) 1884
Milne, A. ... *Principles and Practice of Midwifery.* (30) 2nd Ed. 1879
Mitchell, Kate *The Drink Question* ... ... (5) [N.D.]
Mitchell, T. R. *On the Use of the Speculum* ... ... (25) 1849
Money, A. ... *Practice of Medicine* ... ... (16) 1889
,, *Treatment of Disease in Children* ... ... (16) 2nd Ed. 1890
Monro, H. ... *On Insanity* ... ... (5) 1851
Moore, C. H. ... *On Going to Sleep* ... ... (25) 1868
Moore, N. ... *Visceral New Growths* ... ... (5) 1889
Morgagni, J. B. *De Sedibus et Causis Morborum* ... ... (8) 1761
Moullin, C. W. M. *Surgery* ... ... (27) 1891
Moure, E. J. ... *Amygdalotomie et Hémorragie* 1891
Müller, J. ... *Embryology with the Physiology of Generation.* (Tr. by W. Baly) ... ... (23) 1848
Munk, W. ... *Roll of the Royal College of Physicians.*—3 vols. (20) 2nd Ed. 1878
Munnicks, J. ... *De Re Anatomica* 1697
Murphy, E. W. *Chloroform in Childbirth* ... ... (25) 1855
Murray, W. ... *Inductive Method in Medicine* 1891
Murrell, W. ... *Chronic Bronchitis* ... ... (16) 1889

Napier, A. D. L. *The Thermometer in Obstetrics and Gynecology* 1890
Neale, R. ... *The Medical Digest.* (5) 1877. (8, 28) 2nd Ed. 1882.
The Medical Digest and Appendix. (16) 1882–86.
The Medical Digest. 1840—90 ... ... 3rd Ed. 1891
Neligan, J. M. *Medicines: their Uses and Mode of Administration.* (23) 4th Ed. 1854
Neubauer and J. Vogel, C. *On the Urine.* 4th Ed. (Tr. by W. O. Markham) ... ... (5) 1863
Niemeyer, F. v. *Lectures on Phthisis.* 2nd Ed. (Tr. by C. Bæumler.) (5) 1870
Nittinger, C. G. G. *Die Impfregie mit Blut und Eisen, &c.* ... ... (3) 1868
Nixon, C. J. ... *Hospital Practice and Physical Diagnosis* 1889
Nomenclature of Diseases, The ... ... (30) 1869. (30) 2nd Ed. 1885
Nunneley, T. ... *Anatomical Tables* ... ... (23) 1838

Oesterlen, F. ... *Medical Logic.* (Tr. and Ed. by G. Whitley.) (5) 1855
Oliver, G. ... *The Harrogate Waters* ... ... (5) 1881
Oliver, T. ... *Lead Poisoning* 1891
Orfila, P.... ... *Leçons de Médecine légale.* 2 vols. ... ... (3) 1823-26
Owen, E. ... *A Manual of Anatomy* 1890
Owen, R. ... *On the Homologies of the Vertebrate Skeleton* ... (5) 1848
,, *On the Nature of Limbs* ... ... (5) 1849

Paget, Sir J. ... *Lectures on Surgical Pathology* ... ... (5) 4th Ed. 1876
Parey, A. ... *Works.* (Tr. by T. Johnson) ... ... (8) 1649
Paris, J. A. ... *Pharmacologia.* 2 vols. ... ... (19) 6th Ed. 1825
Parker, L. ... *On Syphilitic Diseases* ... ... (25) 4th Ed. 1860
Parkes, E. A.... *Cholera* ... ... (30) 1847
Parkes, L. C. ... *Hygiene and Public Health* ... ... (16) 2nd Ed. 1890
* **Parry, C. H.** ... *Elements of Pathology and Therapeutics.* (5) Vol. I. 2nd Ed. 1825
Paulus (Ægineta) *Seven Books.* (Tr. by F. Adams.) 3 vols. (5) 1844-47
Pavy, F. W. ... *The Harveian Oration,* 1886... ... ... (3) [N.D.]
* **Paxton, J.** ... *Introduction to the Study of Human Anatomy.* (5) Vol. I. 1834
Payne, J. F. ... *Manual of General Pathology* ... ... (5) 1888
Peacock, T. B.... *Malformations of the Heart* ... ... (5) 2nd Ed. 1866
Pemberton, C. R. *Diseases of the Abdominal Viscera* ... (19) 4th Ed. 1820
Pepper, A. J. ... *Elements of Surgical Pathology* ... ... (5) 2nd Ed. 1884
Pharmacopœia, British ... ... (30) 1867 1885
Pharmacopœia, British. Additions 1890
Philip, R. W.... *Pulmonary Tuberculosis* 1891
Phillips, C. D. F. *Materia Medica and Therapeutics: Vegetable Kingdom,* 1874;
Inorganic Substances ... ... (15) 1882
Piper, R. U. ... *Operative Surgery Illustrated* ... ... (25) 1852
Plinius, C. (secundus) *Naturalis Historia* ... ... 3 vols. (8) 1669
Pollock, J. E.... *The Harveian Oration,* 1889... ... ... (3) 1889
Pollock and J. Chisholm, J. E. *Medical Handbook of Life Assurance.* 3rd Ed. 1889
Porritt, N. ... *Intra-thoracic Effusion* ... ... (5) 1883
Pott, P. ... ... *Works.* (Ed. by J. Earle.) 3 vols.... ... ... (5) 1790
Potter, S. O. L. *Compend of Anatomy* ... ... (5) 1887
Power, V. D. Harris and D. *Physiological Laboratory.* (28) 4th Ed. 1888
Praagh, W. V. *Oral Instruction of the Deaf and Dumb* ... ... (5) 1884
P[richard], A.... *Crosby Leonard* ... ... (23) [N.D.]
* **Prichard, J. C.** *Researches into the Physical History of Mankind.*— (5) Vol. I. 3rd Ed. 1836
Pritchard, U.... *Diseases of the Ear* ... ... 2nd Ed. 1891
Prochaska, J. A. Unzer and G. *On the Nervous System.* (Tr. and Ed. by T. Laycock) ... ... (5) 1851
Prout, W. ... *On Stomach and Renal Diseases* ... ... (5) 5th Ed. 1848
Purdy, C. W. ... *Diabetes* 1890

Quain, J. ... *Anatomy.* 2 vols. (5) 8th Ed. (Ed. by W. Sharpey, A. Thomson, and E. A. Schäfer.) 1876. 10th Ed. (Ed. by E. A. Schäfer and G. D. Thane.) Vol. I., Part I., II., 1890–91; Vol. II., Part I. 1890

Quain, R. ... *The Harveian Oration,* 1885... ... ... (5) 2nd Ed. 1886

Radicke, — .. *The Application of Statistics to Medical Enquiries.* (Tr. by F. T. Bond) ... ... (3, 5) 1861

Ratier, F. S. ... *Formulaire des hôpitaux de Paris* ... ... (3) 2nd Ed. 1825

Rees, G. O. ... *On Diseases of the Kidney* ... ... (25) 1850

Reeves, H. A.... *Human Morphology: The Limbs and the Perinæum.* (10) 1882

Registration of the Causes of Death ... ... (6) 1845

Rendall, S. M. *The Waters and Baths of Aix-les-Bains* ... ... (5) 1887

Rentoul, R. R. *The Causes and Treatment of Abortion* ... ... (5) 1889

Rhazes, —. ... *On the Small-Pox and Measles.* (Tr. by W. A. Greenhill) ... ... (5) 1848

Richards, J. M. *A Chronology of Medicine* ... ... (24) 1880

Rigby, E. ... *On Uterine Hæmorrhage* ... ... (25) 4th Ed. 1789

Rigby, E. ... *Midwifery* ... ... (23) 1844

,, *Dysmenorrhœa* ... ... (25, 30) 1844

Rilliet, A. C. E. Barthez et F. *Maladies des Enfants.* 3 vols. 1843

Rindfleisch, E... *Pathological Histology.* (Tr. by E. B. Baxter.) 2 vols. ... ... (5) 1872–73

Ringer, S. ... *Handbook of Therapeutics* .. ... (16) 12th Ed. 1888

Roberton, J. ... *Physiology and Diseases of Women, and on Midwifery.* (25) 1851

Roberts, F. T.... *The Officinal Materia Medica*... ... ... (5) 2nd Ed. 1887

,, *The Theory and Practice of Medicine*— (5) 6th Ed. 1885. (28) 7th Ed. 1888

,, *Notes on Additions to the B.P.* 1891

Roberts, W. ... *Urinary and Renal Diseases* ... ... (5) 1865

Rodet, P. ... *Vittel* ... ... (5) 1887

Rohé, G. H. ... *Text-Book of Hygiene* ... ... (11) 2nd Ed. 1890

Rokitansky, C. *Pathological Anatomy.* 4 vols. (5) Vol. I. (Tr. by W. E. Swaine), 1854; (5) Vol. II. (Tr. by E. Sieveking), 1849; (5) Vol. III. (Tr. by C. H. Moore), 1850; (5) Vol. IV. (Tr. by G. E. Day) 1852

Romberg, M. H. *Diseases of the Nervous System.* (Tr. and Ed. by E. H. Sieveking.) 2 vols. ... ... (5) 1853

Roose, R.... ... *Nerve Prostration* ... ... (28) 1888

,, *Gout*... ... ... (16) 6th Ed. 1889

Ryan, M. ... *Manual of Midwifery* ... ... (25) 3rd Ed. 1831

Sansom, A. E....	*Lettsomian Lectures* ... ... (5)	1883
* **Santos, R. D.**...	*Clinique obstétricale* ... ... (5) Tome I.	1886
Satterthwaite, T. E. [Ed.]	*A Manual of Histology* ... ... (28)	1881
Saundby, R. ...	*Lectures on Bright's Disease* ... ... (5)	1889
,,	*Lectures on Diabetes*	1891
Sawyer, Sir J...	*Practical Medicine* ... ... 2nd Ed.	1891
Sayre, L. A. ...	*Spinal Disease and Curvature* ... ... (23)	1877
Schleiden, T. Schwann and M. J.	*Researches.* (Tr. by H. Smith).. (5)	1847
Schneer, J. ...	*Alassio* ... . (5)	1887
Schroeder van der Kolk, J. L. C.	*On the Spinal Cord.* (Tr. by W. D. Moore) ... ... (5)	1859
,,	*Atrophy of the Brain.* (Tr. by W. D. Moore.) (3, 5)	1861
Schwann and M. J. Schleiden, T.	*Researches.* (Tr. by H. Smith.) (5)	1847
Scudamore, C....	*On Gout, Gravel, and Rheumatism* ... (5) 3rd Ed.	1819
	Selected Monographs ... ... (5)	1861
Semple, R. H....	*Diseases of the Heart* ... ... (23)	1875
Senn, N.	*Principles of Surgery* ... ... (27)	1890
Sewill, H. ...	*Dental Surgery* ... ... (16) 3rd Ed.	1890
Seymour, E. J.	*On Dropsy* ... ... (25)	1837
Shaffer, N. M..	*What is Orthopædic Surgery?*	1890
Shaw, J.	*Anatomy* ... ... (10) 2nd Ed.	1822
Sheen, A. ...	*Workhouse Medical Officer* ... ... (5) 2nd Ed.	1890
Shoemaker, J. V.	*Diseases of the Skin* ... ... (5)	1888
,,	*Heredity, Health and Personal Beauty* ... ... (27)	1890
* ,,	*Materia Medica, Pharmacology and Therapeutics.* Vol. II.	1891
,,	*Ointments and Oleates* ... ... 2nd Ed.	1890
Silk, J. F. W....	*Nitrous Oxide Anæsthesia* ... ... (5)	1888
Silvester, H. R.	*The True Physiological Method of Restoring Persons apparently Drowned or Dead* ... ... (25)	1858
Simon, J. F. ...	*Chemistry.* (Tr. and Ed. by G. E. Day.) 2 vols. (5)	1845-46
Simpson, Sir J. Y.	*Works.* 3 vols. Vol. I., Obstetrics. (Ed. by J. W. Black); Vol. II., Anæsthesia. (Ed. by Sir W. G. Simpson); Vol. III., Diseases of Women. (Ed. by A. R. Simpson)	1871
Sims, J. M. ...	*Clinical Notes on Uterine Surgery*... ... ... (8)	1866
Skey, F. C. ...	*Ulcer* ... ... (10, 23)	1837
Smedley, J. ...	*Practical Hydropathy* ... ... (5) 14th Ed.	1872
Smellie, W. ...	*Obstetric Plates* ... ... (30) 2nd Ed.	1761
,,	*Midwifery.* (Ed. by A. H. McClintock.) 3 vols. (5, 28)	1876-78
Smith, F. W....	*The Saline Waters of Leamington* ... (5) 2nd Ed.	1885
Smith, H. ...	*The Surgery of the Rectum* ... ... (25) 3rd Ed.	1871
Smith, N. ...	*Curvatures of the Spine*... ... ... (23) 2nd Ed.	1888
... ,,	*Spasmodic Wry-Neck*	1891

Smith, S. ... ... *Principles and Practice of Operative Surgery.* 2nd Ed. 1887
Smith, W. T. ... *The Periodoscope* ... ... (25) 1848
Snow, H. ... *Proclivity of Women to Cancer* 1891
South, J. F. ... *The Craft of Surgery* ... ... (8) 1886
Sozinskey, T. S. *Medical Symbolism*... 1891
Spratt, G. ... *Obstetric Tables.* 2 parts ... ... (9) 2nd Ed. 1835
Squire, B. ... *Diseases of the Skin* ... ... (25) 4th Ed. 1887
Squire, P. ... *Three Pharmacopœias* ... ... (25) 1851
,, *Companion to the British Pharmacopœia.* (5) 12th Ed. (conjointly with P. W. Squire and A. H. Squire) 1880
Starr, L. ... ... *Diseases of the Digestive Organs in Children.* 2nd Ed. 1891
Steavenson, W. E. *Spasmodic Asthma* ... ... (5) 1879
Steggall, J. ... *A Manual for Apothecaries' Hall*... ... (19) 5th Ed. 1831
Stone, W. H. ... *The Harveian Oration,* 1887 ... ... (3) 1887
Stricker, S.[Ed.] *Human and Comparative Histology.* (Tr. by H. Power). 3 vols. ... ... (3, 5) 1870–73
Styrap, J. de ... *The Young Practitioner: his Code and Tariff* 1890
Surgeon's Vade-Mecum, The ... ... (25) 3rd Ed. 1824
Surgery, Memoirs of the Academy of. (Tr. and Ed. by D. Ottley.) (5) 1848
Sutherland, H. *Directory of Justices in Lunacy for* 1890-91... ... (5) 1890
Swan, J. ... ... *Demonstration of the Nerves* ... ... (23) 1834
Swanzy, H. R. *Handbook of Diseases of the Eye*... ... ... (5) 1884
Swedenborg, E. *The Brain* ... . (10) Vol. I. 1882
Sydenham, T.... *Opera Omnia.* (Ed. by W. A. Greenhill) ... (5) 1844
,, *Works.* (Tr. by R. G. Latham.) 2 vols. (5) 1848–50
Syme, J. ... ... *On Stricture of the Urethra, &c.* ... ... (25) 1849
,, *Observations in Clinical Surgery* ... ... (30) 1861
,, *Excision of the Scapula* 1864

Tamplin, R. W. *On Curvature of the Spine* ... ... (25) 1852
Tanner, J. ... *Practical Midwifery, including Anæsthetics* ... ... (30) 1871
Tanner, T. H.... *Clinical Medicine* ... ... (5) 1855
,, *Index of Diseases* ... ... (5) 1866
Taylor, A. S. ... *Medical Jurisprudence.*— (30) 2nd Ed. 1846. (5) 5th Ed. 1854. (23) 6th Ed. 1858
,, *Poisons* ... ... (23) 2nd. Ed. 1859
Tenner and A. Kussmaul, A. *On Epileptiform Convulsions from Hæmorrhage.* (Tr. by E. Bronner) 1859
Therapeutics and Materia Medica at Ninth International Congress ... (23) 1887
Thompson, Sir H. *Tumours of the Bladder* ... ... (5) 1884
,, *Diseases of the Urinary Organs* ... ... (5) 8th Ed. 1888
,, *Modern Cremation* ... ... (5) 1889
Thomson, A. T. *Conspectus of the British Pharmacopœias.* (Ed. by E. L. Birkett) ... ... (23) 17th Ed. 1852
Thornton, B. ... *Comparative Climatology* 1891

Thorowgood, J. C. *Bronchial Asthma* ... ... (5) 3rd Ed. 1887
Tibbits, H. ... *Medical Electricity* ... ... (19) 1873
Tidy and R. Macnamara, C. M. *The Maybrick Trial* ... ... (7) 1890
Tidy, J. E. P. Clarke and C. M. *Medical Law for Medical Men* 1890
Tilt, E. J. ... *On Uterine and Ovarian Inflammation.* (30) 3rd Ed. 1862
Titiano [Vecelli.] *Notomie* ... ... [N.D.]
Todd, R. B. ... *Clinical Lectures: Nervous System* ... (25) 2nd Ed. 1856
Todd and W. Bowman, R. B. *Physiological Anatomy.*—
2 vols. Vol. I. 2nd Ed. 1856; Vol. II. 1859
Tomes, J. ... *Dental Physiology and Surgery* ... ... (8) 1848
Treves, F. ... *Surgical Applied Anatomy* ... ... (5) 2nd Ed. 1884
,, [Ed.] *Manual of Surgery.* 3 vols. ... ... (16) 1886
Troeltsch, A. V. *On Diseases of the Ear.* (Tr. by J. Hinton.) (5) 1874
* **Trousseau, A.**... *Clinical Medicine.* (10) Vol. I. (Tr. and Ed. by P. V. Bazire), 1868; (5) Vols. II.—IV. (Tr. by J. R. Cormack) 1869-71
Tuke, D. H. ... *Prichard and Symonds* 1891
Tuke, J. B. ... *A Plea for the Scientific Study of Insanity* 1891
Turner, D. ... *Dissertation sur les Maladies vénériennes.* 2 vols. ... 1767
Turner, E. ... *Elements of Chemistry* ... ... (19) 4th Ed. 1833
Tyndall, J. ... *Natural Philosophy* ... ... (5) [N.D.]

Underwood, M. *On the Diseases of Children.* (25) 9th Ed. (Ed. by M. Hall) 1835
Unzer and G. Prochaska, J. A. *On the Nervous System.* (Tr. and Ed. by T. Laycock)... ... ... (5) 1851

Vaccination Commission. (16) *1st Report*, 1889; (16) *2nd Report* 1890
Velpeau, A. ... *Diseases of the Breast.* (Tr. by M. Henry) ... (5) 1856
Vintras, A. ... *Mineral Waters of France* ... ... (5) 1883
Vocabulary, Lewis's Medical ... ... 2nd Ed. 1891
Vogel, J. ... *Icones Histologiae Pathologicae*—Latin and German 1843
,, *Pathological Anatomy of the Human Body* ... ... (30) 1847
Vogel and C. Neubauer, J. *On the Urine.* 4th Ed. (Tr. by W. O. Markham) ... ... (5) 1863

Wagner, A. ... *The Resection of Bones and Joints.* (Tr. by T. Holmes) ... ... (5) 1859
Wainewright, J. *A Mechanical Account of the Non-Naturals.* (5) 2nd Ed. 1708
Waller, C. ... *On the Function and Diseases of the Womb* ... ... (25) 1841
Walshe, W. H. *On Cancer* ... ... (3) 1846
,, *Diseases of the Lungs and Heart* ... ... (23) 2nd Ed. 1854
Ward, S. H. ... *Life Assurance* ... ... (25) 1857

Wardrop, J. ... *Diseases of the Heart* ... ... (23) 1851
Waring, E. J. *Bibliotheca Therapeutica.* 2 vols. ... ... (3, 5) 1878–79
Warlomont, E. *Manual of Animal Vaccination.* (Tr. and Ed. by A. J. Harries) ... ... (16) 1885
Waters, A. T. H. *Emphysema of the Lungs* ... ... (25) 1862
Watson, T. ... *The Principles and Practice of Physic.* 2 vols. (5) 3rd Ed. 1848
Watson, W. S. *Diseases of the Nose* ... ... (2) 2nd Ed. 1890
Wedl, C.... .. *Pathological Histology.* (Tr. and Ed. by G. Busk) (5) 1855
Weightman, H. *The Medical Practitioner's Legal Guide* ... ... (5) 1870
West, C. ... ... *Diseases of Infancy and Childhood.* (23) 3rd Ed. 1854
,, *The Harveian Oration for* 1874 ... ... (3) 1874
What to Observe ... ... (3) 1853
Williams, C. T. *Influence of Climate in Pulmonary Consumption.* (5) 1877
Williams, J. C. *On Diseases of the Heart* ... ... (25) 2nd Ed. 1852
Willmott, W. B. *Glycerin and Cod Liver Oil* ... ... (25) 1860
Wilson, E. ... *Diseases of the Skin* ... ... (5) 2nd Ed. 1847
Wilson, G. ... *Handbook of Hygiene* ... ... (5) 3rd Ed. 1877
Winckel, F. ... *Diseases of Women.* (Tr. by J. H. Williamson.) (5) 1887
,, *Text-Book of Midwifery.* (Tr. by J. C. Edgar) ... 1890
Windle, B. C. A. *Surface Anatomy* ... ... (5) 1888
Winslow, F. ... *Obscure Diseases of the Brain and Mind.* (23) 3rd Ed. 1863
Wise, A. T. ... *Alpine Winter in its Medical Aspects.* (5) 3rd Ed. 1886
Wolfe, J. R. ... *Original Contributions to Ophthalmic Surgery* ... (5) 1890
Women, Diseases Peculiar to. (Ed. by F. Churchill) ... ... (5) 1849
Woodhead, G. S. *Bacteria and their Products* 1891
Wunderlich, C. A. *Medical Thermometry.* 2nd Ed. (Tr. by W. B. Woodman) ... ... (5) 1871

Yearsley, J. ... *On the Throat* ... ... (25) 1842
Yeo, J. B. ... *Food in Health and Disease* ... ... (16) 1889
,, *The Treatment of Typhoid Fever* 1891
Young, S. ... *The Annals of the Barber-Surgeons of London* 1890

Zacchia, P. ... *Quæstiones Medico-legales* ... ... (5) 1651
Ziegler, E. ... *General Pathological Anatomy* ... ... 2nd Ed. 1885
,, *Special Pathological Anatomy.* Sect. I.—VIII. 2nd Ed. 1887. Sect. IX.—XII. 1886

TRANSACTIONS, REPORTS, JOURNALS, &c.

The List of current Periodicals to be seen in the Library is given in the Journal *for March.*

*Abstract of the Medical Sciences, Half-yearly—
(30) Vols. I.—III.; (17, 30) Vols. IV.—XVIII.;
(30) Vols. XIX.—LVII. 1845-73
American Journal of Ophthalmology, The. (10) Vols. I.—VII. 1885-90
*American Practitioner and News, The—
(27) Vols. I.—VIII. in four volumes 1886-89
*American Surgical Association, Transactions of the—
Vol. I., 1883; Vol. II. 1885
Analectic, The ... ... Vol. I. 1884
Continued as *The Medical Analectic.*
Annual of the Universal Medical Sciences. 5 vols. (16) 1888;
5 vols. (16) 1889; 5 vols. (4, 30) 1890; 5 vols. 1891
*Archiv für pathologische Anatomie und Physiologie und für klinische Medicin ... ... (5) 1861
Army—
* Statistical Reports on the Sickness, &c., among the Troops in the United Kingdom, &c. ... ... (3) 1853
*Army Medical Departments—Statistical, Sanitary and Medical Reports for 1860, 1861, 1862. 3 vols. ... ... (3) 1862-64
*Association of American Physicians, Transactions of the—
(5) Vols. II., III. 1887-88
Association Medical Journal. (Continuation of *Provincial Medical and Surgcal Journal*) ... ... (25) 1853-57
Continued as *British Medical Journal.*

*Bibliotheca Medico-Chirurgica... ... (31) 1889; (31) 1890; (31) 1891
Biennial Retrospect of Medicine and Surgery, A. (Continuation of *A Year Book of Medicine and Surgery*) 5 vols.
(5) 1867; (5) 1869; (5) 1871; (5) 1873; (5) 1875
*Bristol Health Report, 1890 ... ... (11) 1891
Bristol Medico-Chirurgical Journal ... ... Vols. I.—VIII. 1883-90
Bristol Medico-Chirurgical Society, Transactions of the—
(10, 28) Vol. I. 1878
*Brain ... ... Vol. XIII. 1890

British and Foreign Medico-Chirurgical Review, The. 60 vols. (5) 1848-77
*British Gynæcological Journal, The—
Vols. II., III. 1887-88; Vols. V., VI. 1889-90
British Journal of Dermatology, The ... ... Vols. I., II. 1889-90
*British Medical Journal, The. (Continuation of *Association Medical Journal.*) (25) 1858-81; (5, 25) 1882-83; (25) 1884-89; Vol. II. 1890 ... ...Vol. I. 1891
British Medical Journal, Supplement to the ... 1890; Vol. I. 1891
British Nurses' Association—First Annual Report 1889

*Calendar of the Royal College of Surgeons of England ... (23) 1876
*Clinical Society's Transactions ... ... (15) Vol. X. 1877
*Collective Investigation Record, The ... ... (23) Vols. I., II. 1883-84

*Dentists Register ... ... (23) 1885
Directory of Second-hand Booksellers, The ... ... (16) 1888 1891
*Dublin Journal of Medical Science, The ... (5) Vol. LXII. 1881

*Edinburgh Medical Journal. (Combination of *Monthly Journal of Medical Science* and of *Edinburgh Medical and Surgical Journal.*) (5) Vols. II.—VII., 12 vols., 1857-62; (5) Vol. IX., 2 vols., 1864; (5) Vols. XII., XIII., 4 vols., 1867-68; (5) Vols. XVII.—XXI., 10 vols. 1872-76
*Epidemiological Society, Transactions of the (23) 1875-80; (5) 1883

*Glasgow Medical Journal, The. (27) Vols. XXI.—XXXII. 1884-89; Vols. XXXIV., XXXV. 1890-91

Hospital, The ... ...Vols. I.—IX. 1887-91
Hospitals:
Birmingham, The General Hospital, 1863 ... ... (3) 1864
* Guy's Hospital Reports. (17) Series III., Vols. I.—XXV., 1855-81; (17) Vols. XLI.—XLV., 1883-88; Vol. XLVII. 1890
* Middlesex Hospital. Registrars' Reports 1889
* St. Bartholomew's Hospital Reports. (5) Vols. I.—XXII. 1865-86
* St. Thomas's Hospital Reports ... ... Vol. XIX. 1891
Hygiene and Demography, "The Lancet" Reports of the International Congress of, 1876 to 1889 1891
Hygiene and Demography, "Public Health" Special Report of the International Congress of, 1891 1891

*Illustrated Medical News, The. (5) Vols. I.—V., 1888-89; Jan. 4, 11, 25 1890
*Index Medicus ... ...(27) Vol. XI. 1890
International Clinics ... ... Vol. I. 1891
*International Medical Congress, Transactions of the. 5 vols. (30) 1881

*Journal of Anatomy and Physiology, The ... (28) Vol. XII. 1878
Journal of Cutaneous and Genito-Urinary Diseases. (Continuation of *Journal of Cutaneous and Venereal Diseases.*) Vols. V.—VIII. 1887-90
*Journal of Cutaneous and Venereal Diseases ... ... Vol. IV. 1886
Continued as *Journal of Cutaneous and Genito-Urinary Diseases.*
Journal of Physiology, The ... ... (28) Vols. I.—X. 1878-89

*Laboratory Reports. Royal College of Physicians, Edinburgh. Vol. III. 1891
*Lancet, The. (5) Vol. VIII., 1825; (5) 1833-44; (5) 1857-60; (5) 1865; (5) 1867-70; (5) 1876-78; (5) 1882-83; ... Vol. I. 1891
*Local Government Board, Annual Reports of the ... ... (5) 1871
*London Medical and Surgical Journal, The—
(5) Vols. I.—III., V.—VII. 1832-35
*London Medical Record, The ... ... (27) Vols. XII.—XIV. 1884-86
Continued as *The London Medical Recorder.*
*London Medical Recorder, The. (Continuation of *The London Medical Record*)... ... ... (27) Vols. I., II. 1888-89
*Lunacy, Reports of the Commissioners in. (5) 1850; (5) 1851; (5) 1852

*Marine-Hospital Service of the United States, Annual Report of the Supervising Surgeon-General of the ... ... (5) 1889
Medical Analectic, The. (Continuation of *The Analectic.*) Vols. II.—VI. 1885-89
Continued as *The Medical Analectic and Epitome.*
Medical Analectic and Epitome, The. (Continuation of *The Medical Analectic*) ... ... Vol. VII. 1890
*Medical Annual, The. (16) 1887; (16) 1888; (16) 1889; (16) 1890 1891
*Medical Chronicle, The ... ... (8, 27) Vol. I., 1884-85 (27) Vols. II.—X.; 1885-89; Vol. XIII. 1890-91
*Medical Council, Minutes of the General ... (5) Vol. XXIV. 1887
*Medical Directory, The. (16) 1870; (16) 1874; (6) 1875; (23) 1884; (6) 1885; (6) 1887; 1890 1891
*Medical Officer of Privy Council, Reports of the—
(3) 6th Report, 1864; (3) 9th Report 1867
*Medical Record, The—
(27) Vols. XXIV.—XXXVI., 1883-89. Vol. XXXVIII. 1890
*Medical Register, The ... ... (6) 1871; (23) 1885
*Medical Times, The—
(5) Vols. XII.—XV., 1845-47; (5) Vols. XVII.—XXIV. 1848-51
Continued as *The Medical Times and Gazette.*
*Medical Times and Gazette, The. (Continuation of *The Medical Times.*) (5) Vols. XXV.—XL., 1852-59; (5) 1860-64; (5, 14) 1865-66; (5) 1867-69; (5, 14) 1870-73; (5) 1874-75; (5) Vol. I., 1876; (5) 1878 ... ... (14) 1881-85

*Medico-Chirurgical Transactions—
(5) Vols. XXXIII.—LXVI., 1850-83; (5) LXVIII.—LXXII., 1885-89; Index, Vols. I.—XXXIII., 1851; Index, Vols. I.—LIII 1871

*Monthly Journal of Medical Science, The. (5) Vols. IX.—XI., 1849-50.
(5, 17) Vols. XII.—XVII., 1851-53; (5) Vols. XVIII.—XX. 1854-55
Merged in *Edinburgh Medical Journal*.

Navy:
* Statistical Reports on the Health of the Navy, 1837-43. (3) Part III. 1854
* Statistical Report on the Health of the Navy, 1888. (5) 1889
* Statistical Abstract on the Health of the Navy, 1867-68. (5) 1868

*New York Academy of Medicine, Transactions of the. Series II.
(18) Vol. I., 1874; (18) Vol. II., 1876; (16) Vol. III., 1883; (18) Vol. IV., 1886; (18) Vol. V., 1886; (18) Vol. VI. 1890

*New York Medical Journal, The—
(27) Vols. XXXVIII.—L., 1883-89; Vols. LII., LIII. 1890-91

*Obstetrical Transactions. (8) Vols. I. — XII. 1860-71; (7) Vols. XIV.—XXVI. 1873-85

*Prisons, Report of the Directors of Convict, 1863 ... ... (3) 1864

*Progrès médical, Le ... ... Tome XIII. 1891

Provincial Medical and Surgical Association, Transactions of the.
(17, 25) Vols. I.—V., 1833-37; (25) Part I., Vol. VI., 1837; (17, 25) Part II., Vol. VI., 1838; (5, 17, 25) Vol. VII., 1839; (5, 25) Vols. VIII.—XIV., 1840-46; (5) Vol. XV., 1847; (25) Parts I., II., Vol. XVI.—XIX. 1848-53

*Provincial Medical and Surgical Journal. (25) Vol. II. 1841; (25) 1842-52
Continued as *Association Medical Journal*.
From Vol. II., 1842, to Vol. VII., 1844, it was called *Provincial Medical Journal*.

*Registrar-General of Births, Deaths, and Marriages in England, Reports of ... ... (3) 1846; 1856-62 1865

*Répertoire général d'Anatomie et de Physiologie pathologiques, et de Clinique chirurgicale ... ... Tomes I.—VI. 1826-28

*Ditto. Atlas.

*Retrospect of Medicine, Braithwaite's. (25) Vol. I., 2nd Ed., 1841; (5) Vols. IV.—XLVIII., 1841-64; (25) Vols. LV.—LVII., 1867-68; (5, 25) Vol. LVIII., 1869; (25) Vols. LIX., LX., 1869-70; (5, 25) Vols. LXI.—LXIII., 1870-71; (5) Vols. LXIV. — LXX., 1872-74; (5) Vol. LXXIII., 1876; (5) Vol. LXXXV. 1882

*Revue médicale, La ... ... (5) Tome II. 1860

*Royal Academy of Medicine in Ireland, Transactions of the. Vol. VIII. 1890

*St. Andrew's Medical Graduates' Association, Transactions of the ... ... (6) Vols. V., VI. 1872-74

*Therapeutic Gazette, The ... ... Vols. VIII.—XIV. 1884-90

*Union médicale, L' ... ... 3rd Series. Tome LI. 1891

*West London Medico-Chirurgical Society, Transactions of the— (5) Vol. II. 1887

*Würzburger medicinische Zeitschrift. ... ... (5) 3 vols. 1861-2-3

*Year-Book of Medicine and Surgery, A. (5) 1861; (5) 1862; (5) 1863; (5) 1864; (5) 1865

Continued as *A Biennial Retrospect of Medicine and Surgery.*

*Year-Book of Scientific and Learned Societies 1890 1891

*Year-Book of Treatment, The ... ... (23) 1889 1891

*Zeitschrift der k.k. Gesellschaft der Arzte in Wien ... ... (5) 1864

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SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

Shakspere's Family as Patients.—"Master John Hall, Phyfician," who was in practice at Stratford-on-Avon, married Shakspere's daughter, Susanna, in 1607. In Latin he wrote details of the illnesses of many of his private patients, whose names he gives in full in the clinical records which he published. Under the title of *Select Observations on Engliſh Bodies of Eminent Perſons in deſperate Diseases*, his book was translated by James Cook, of Warwick, author of the *Marrow of Chirurgery*. The notes of many of Dr. Hall's cases are interesting, not only on account of the family association of the patients, but because they are additional instances of the diagnosis and treatment then current. Polypharmacy was in fashion then, almost more than at the present time, although we have not to go very far now to find those who, like Dr. Hall and his contemporaries, seem to think that there exists a drug to be appropriated to each individual symptom. Although Dr. Hall's diagnosis is often open to criticism, his treatment was based on sound principles. Not seldom his success was obtained by the induction of copious vomiting, and nearly always by very free purgation. In these days of elegant pharmacy we are in danger of forgetting the value of this mode of treatment, and we might do well to follow the example of our ancestors somewhat more often and, on their lines, secure quickly very good

results by methods which produce much less discomfort to the patient than in those times of crude therapeutics.

In an attack from which Dr. Hall's wife suffered, a less quantity of nauseous medicine was required than was usual. Here is her husband's account of the illness:

"Mrs. *Hall* of *Stratford*, my Wife, being miſerably tormented with the Cholick, was cured as followeth. ℞ *Diaphœn. Diacatholic.* ana ʒi. *Pul. Holand* ʒii. *Ol. Rutæ* ʒi. *Lact. q. ſ. f. Clyſt.* This injected gave her two Stools, yet the Pain continued, being but little mitigated; therefore I appointed to inject a Pint of Sack made hot. This preſently brought forth a great deal of Wind, and freed her from all Pain. To her Stomach was applied a Plaiſter *de Labd. Crat. cum Caran. & Spec. Aromat. roſat. & Ol. Macis.* With one of theſe Clyſters I delivered the Earle of *Northampton* from a grievous Cholick."

The virtues of sack have been celebrated by Jack Falstaff in a well-known passage, although he would no doubt have considered that to use it by this route was a deliberate waste of his favourite liquor. But it seems to have done more good when directed by the hands of Dr. Hall than it ever did in the mouth of Jack.

The health of Dr. Hall's daughter, when she was sixteen years of age, was a source of anxiety to her parents. Her father thus records the difficulties:

"*Elizabeth Hall*, my only Daughter, was vexed with *Tortura Oris*, or the Convulſion of the Mouth, and was happily cured as followeth: Firſt, I exhibited theſe Pills: ℞ *Pil. Coch. & Aurear.* ana ʒi. *f. Pil.* 10. She took five the firſt day, which gave her ſeven Stools; the next day with the other five ſhe had five ſtools. I fomented the part with *Theriac. Andromac.* and *Aq. Vitæ.* To the Neck was uſed this: ℞ *Unguent. Martiat. magn.* ʒi. *Ol. Laurin. Petrolei, Caſtor. & Terebinth.* ana ʒſs. *de lateribus* ʒſs. *Miſc.* By this ſhe had great advantage, her Courſes being obſtructed. Thus I purged her: ℞ *Pil. fœtid.* ʒi. *Caſtor.* ʒi. *de Succin. Rhab. agaric.* ana ℈ſs. *f. Maſſ.* She took of this five Pills in the morning, of the bigneſs of Peaſe; they gave eight ſtools. The next day ſhe took *Aq. Ophthalm.* ſee *Obſer.* 3, as ℞ *Tutiæ.*, &c., her Courſes flowed. For an *Ophthalmia*, of which ſhe laboured, I uſed our Ophthalmick Water, dropping two or three drops into her Eye. Her Courſes ſtaying again, I gave the following Sudorific Decoct. ℞ *Lign. Vitæ* ʒii. *Saſſafras* ʒſs. *Saſſap.* ʒi. *Chin.* ʒvi. *macerat. per* 24 *hor. in Aq. fontan.* lb. viii. *After boyl them to* lb. iv. After the uſe of theſe, the former form of her Mouth and Face was reſtored (there was not omitted *Ol. Sarſap.*, which was above all to anoint the Neck.) *Jan.* 5, 1624.

"In the beginning of *April* ſhe went to *London*, and returning homewards, the 22d of the ſaid Month, ſhe took cold, and fell into the ſaid Diſtemper on the contrary ſide of the Face; before it was on the left ſide, now on the right; and although ſhe was grievouſly afflicted with it, yet by the bleſſing of God ſhe was cured in ſixteen days, as followeth: ℞ *Pil. de Succin* ʒſs. *Aurear.* ℈i. *f. Pil.* v. She took them when ſhe went to bed. The ſame night her Neck was anointed with Oil of *Saſſafr.* In the morning I gave ʒſs. of *Pil. Ruffi.*, and again uſed the ſaid Oil with *Aqua Vitæ*, and dropped into her Eye the Ophthalmick Water. The aforeſaid Oil being wanting, I uſed the following: ℞ *Pul. Caſtor. Myrrh. Nuc. Moſch. Croci.* ā ℈i *Ol. Rutæ, Laurin. Petrol. Tereb.* ā ʒii. *Ungu. martiat.* ʒſs. *Ol. Coſtin. de Peper.* ā ʒi. *Miſc.* But firſt the Neck was fomented with *Aqua Vitæ*, in which was infuſed *Nutmegs, Cinnamon, Cloves, Pepper.* She eat Nutmegs often. To the Noſtrils, and top of the Head was uſed the Oil of Amber. She chewed on the ſound ſide, Pellitory of *Spain*, and was often purged with the following Pills: ℞ *Pill. fœtid.* ℈i. *Caſtor pul.* ℈ſs. *Pil. Ruffi. & de Succin.* ā ℈i. *f. Pil.* N° v. And thus ſhe was reſtored.

"In the ſame year, *May* 24. ſhe was afflicted with an Erratick Feaver; ſometimes ſhe was hot, and by and by ſweating, again cold, all in the ſpace of half an hour, and thus ſhe was vexed oft in a day. Thus I purged her: ℞ *the Roots of Parſly,*

Fennel, each Mſs. *Elder Bark* Mii. *Roots of the vulgar Oris, of Madder,* each Mi. *Roots of Sparagus,* Mii. *Boyl them in ſufficient quantity of Water to ſix pints. To the ſtraining, add Rubarb, Agarick, each* ʒſs. *Sena* ʒvi. *Mechoacan* ʒii., *Calamus Aromaticus* ʒi. *Aniſeeds* ʒi., *Cinnamon* ʒſs. *Infuſe them in a Veſſel well ſtopt according to art: ſtrain it again, and to the ſtraining add Sugar ſufficient to make a Syrup. of this take* ʒiv. *Rubarb infuſed in* ʒv. *of Cichory water* ʒii. *Mix them, and give ſeven ſpoonfuls every day faſting.* It gave ſeven or eight ſtools without pain. ℞ *Sarſap.* ʒi., *Saſſafr.* ʒii., *Guaiac* ʒi., *Liquoris* ʒſs., *Herb of Succory, Sage, Roſemary, each* Mſs. *Boyl them in ten pints of Water till half be waſted.* Of which ſhe took a draught hot in the morning. The following was uſed to anoint the Spine: ℞ *Gum. Galban. Bdel. diſſol. in Aq. Vit.* ā ʒſs. *Benzoin.* ʒi. *Styrac. liquid.* ʒi. *Fol. Rut. Chamæpith. Flor. Stœchad. Lavendula,* ā ʒii. *Rad. coſti.* ʒſs., *Caſtorei* ℈i. *infund. miſc. & pulveriſat. in Aq. Vitæ.* It is to be infuſed in ſome hot place for ſome days. Before it was uſed, the Spine was rubb'd. An hour after it was uſed, all the Symptoms remitted daily till ſhe was well. Thus was ſhe delivered from Death, and deadly Diſeaſes, and was well for many years. To God be praiſe."

The *Aq. Ophthalm.*, concerning which Dr. Hall's reader was referred to Observation III., was made thus:—" ℞ *Sarcocol* wath'd, ʒiij. *Prepared Tutty* ʒij. *Aloes* ʒj. *White Sugar-candy* ʒiſs. *Saffron* gr. iv. *Roſewater* ʒiv. Mix them, letting them ſtand a day, ſhaking them oft."

Dr. Hall did not shrink from administering drugs to himself as freely as he gave them to his patients. When fifty-six years of age (he was only twelve years younger than his father-in-law) he had "an immoderate Flux of the Hemorrhoids," the sequelæ of which nearly killed him. His remedies had, however, done him much good before the arrival of the two physicians for whom his wife sent.

The identification of much of the Materia Medica in Dr. Hall's prescriptions is difficult, and any information about the less known things would be welcome.

The abbreviation M. was used to signify a handful.

Amongst Dr. Hall's other patients was Mrs. Nash, probably the mother of his daughter's first husband. She had "of a long time laboured of a Conſumption, and now afflicted with Wind of the Stomach, as alſo Heat thereof, with ſweating from the Pit of the Stomach to the Crown of the Head, having great Pain of the Head, eſpecially after Meat." He used remedies which "freed her from Wind, and ſhe was able to eat, and ſaid ſhe was very well for a long time after."

It is also likely that the husband of Shakspere's other daughter, Judith, came under Dr. Hall's care, for he attended "Mr. *Queeny*, labouring of a grievous Cough, with vomiting abundance of Phlegm and Meat, having a gentle Feaver, being very weak, and had red Urine without ſediment." His malady was not amenable to the evacuant treatment which was generally so successful in Dr. Hall's hands; and although the illness somewhat abated, "being not wholly freed from it, he fell into it again the next year, and all Remedies proving succeſsleſs, he died. He was a Man of a good Wit, expert in Tongues, and very learned."

It is of further interest to note that another of Dr. Hall's patients was the author of the *Poly-Olbion*, whose monument in Westminster Abbey shows by its inscription how highly he was esteemed by his contemporaries, but whose fame was already dim in the days of Goldsmith, who, upon seeing his grave in the Abbey, exclaimed, "Drayton! I never heard of him before." Upon one occasion Dr. Hall quickly brought him round from an illness which is thus described: "Mr. *Drayton*, an excellent Poet, labouring of a Tertian, was cured by the following: ℞ *the Emetick Infuſion* ʒi. *Syrup of Violets a ſpoonful: mix them.* This given, wrought very well both upwards and downwards."